REMOVABLE PARTIAL DENTURE


بسم الله الرحمن الرحيم

TERMINOLOGY

Prosthesis

Is an artificial replacement of an absent Part of the human body

Dentulous Patients

Patients having a complete set of natural teeth

Edentulous Patients

Patients having all their teeth missing

Edentulous Patients

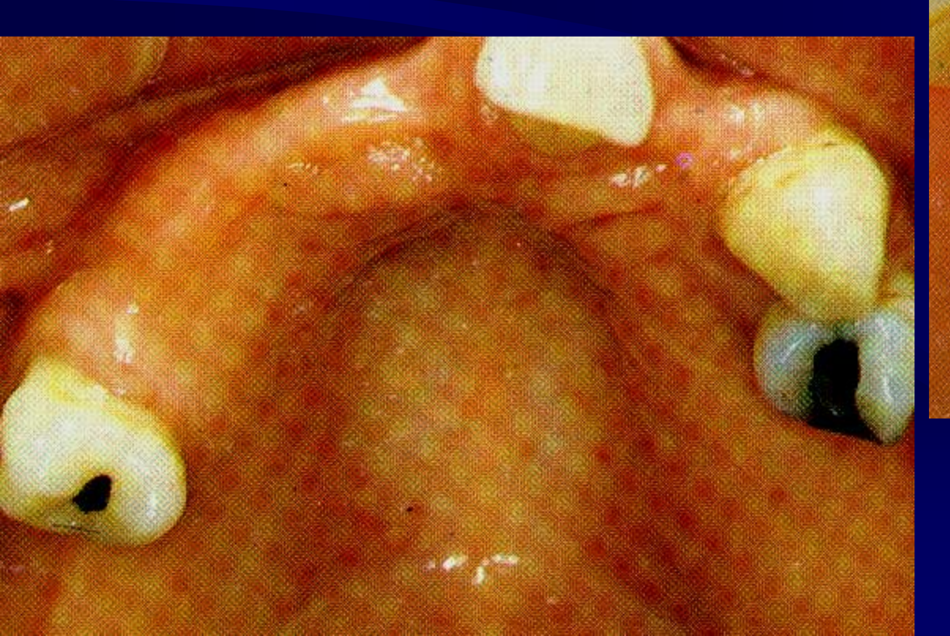


COMPLETE DENTURE

Partially Edentulous Patients

- Patients having one or more but not their entire natural teeth missing.









Removable Partial Denture = R.P.D

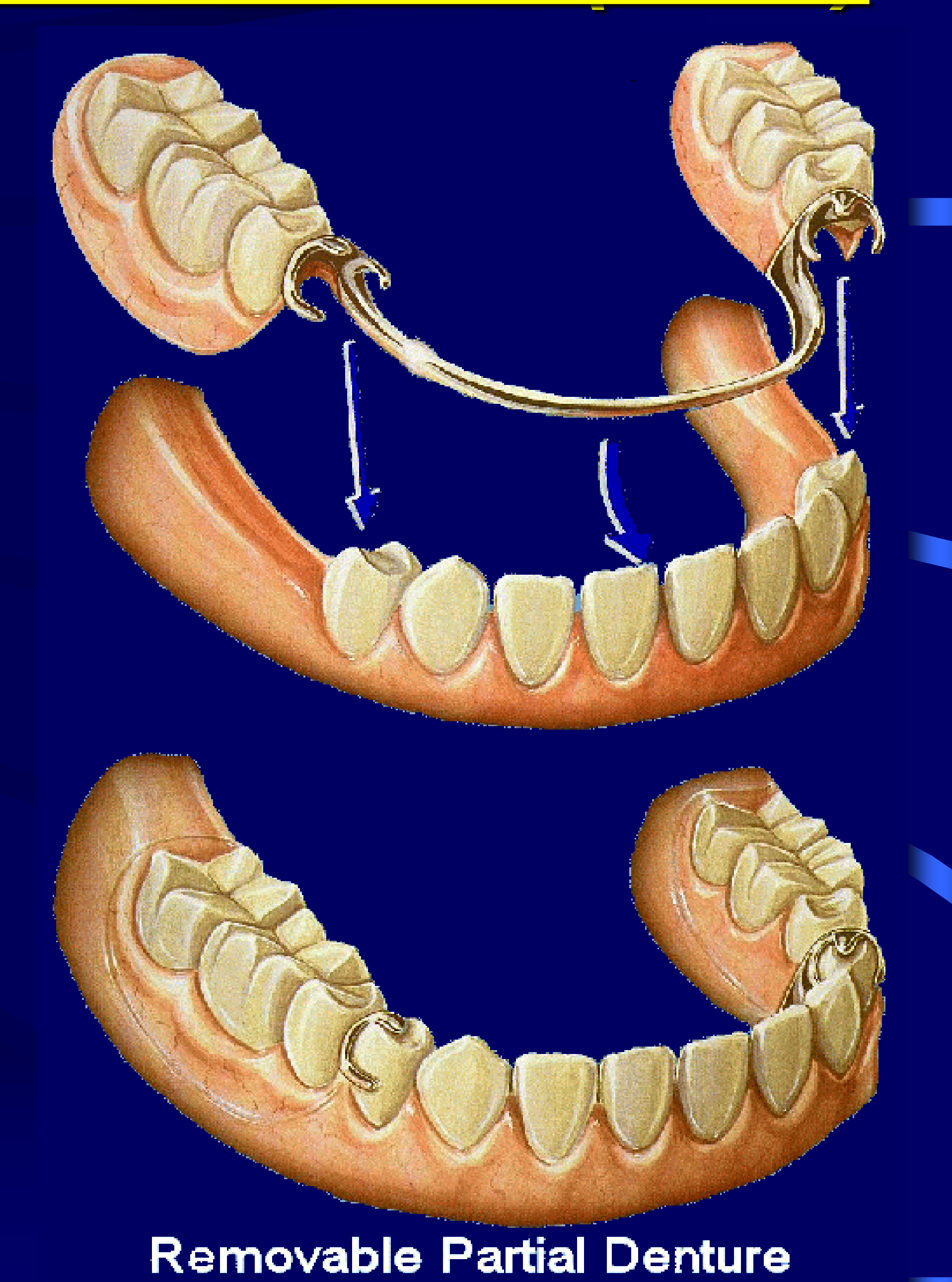
Fixed bridge= F.P.D



Implant

Removable Partial Denture (RPD)

- Removable dental prosthesis (appliance) replacing one or more natural teeth and associated oral structures



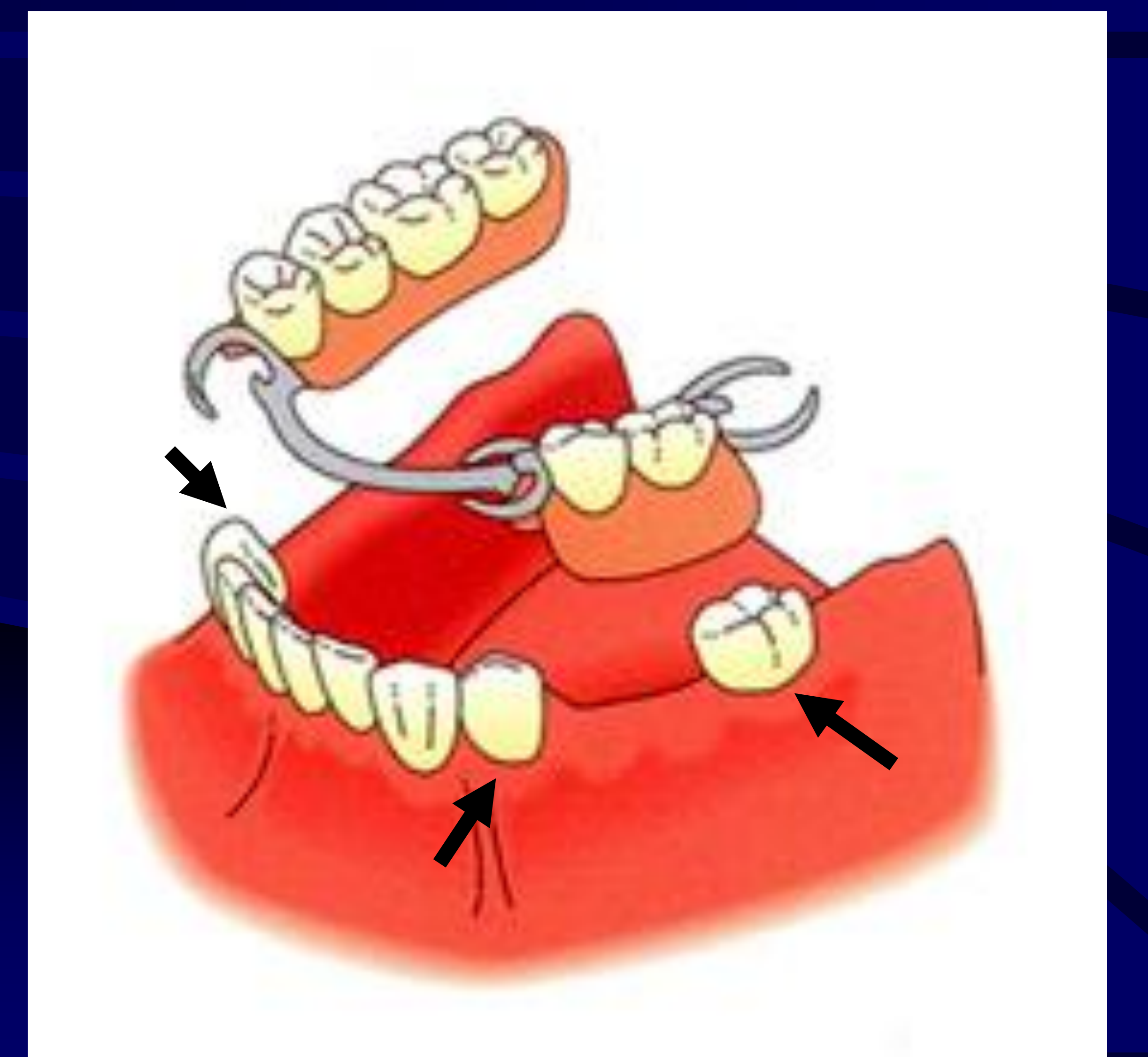
Removable Partial Denture

Free End Edentulous Area (Distal extension edentulous area): **An edentulous area, which has an abutment tooth on one side only**

Bounded Edentulous Area: **An edentulous area, which has an abutment tooth on each end**

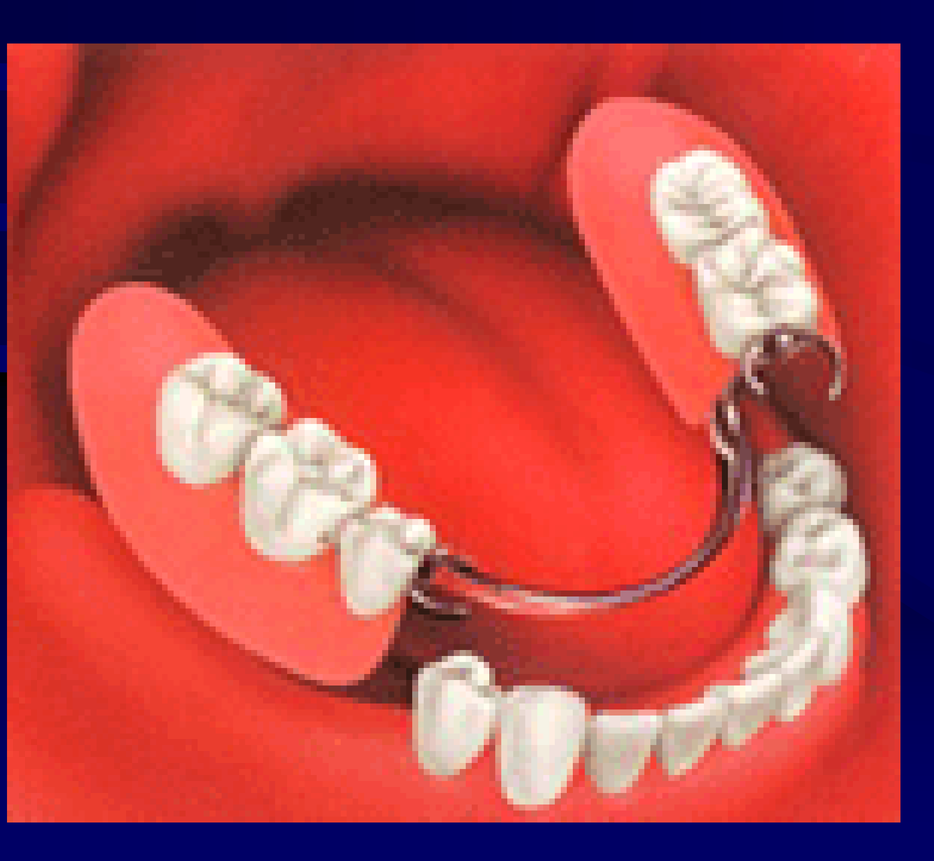


Abutment: A tooth, a portion of a tooth, or that portion of a dental implant that serves to support and/or retain prosthesis



INDICATIONS FOR REMOVABLE PARTIAL DENTURES

1- No abutment tooth posterior to edentulous space (*Free end edentulous area*)





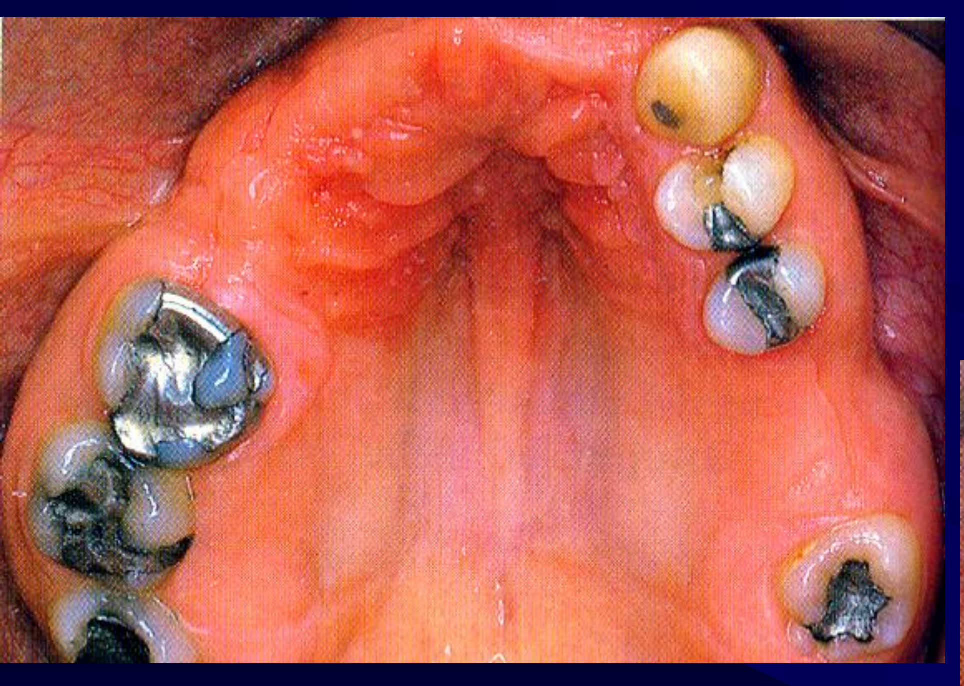
INDICATIONS FOR REMOVABLE PARTIAL DENTURES

2- Long edentulous bounded span, **too extensive for fixed restoration**



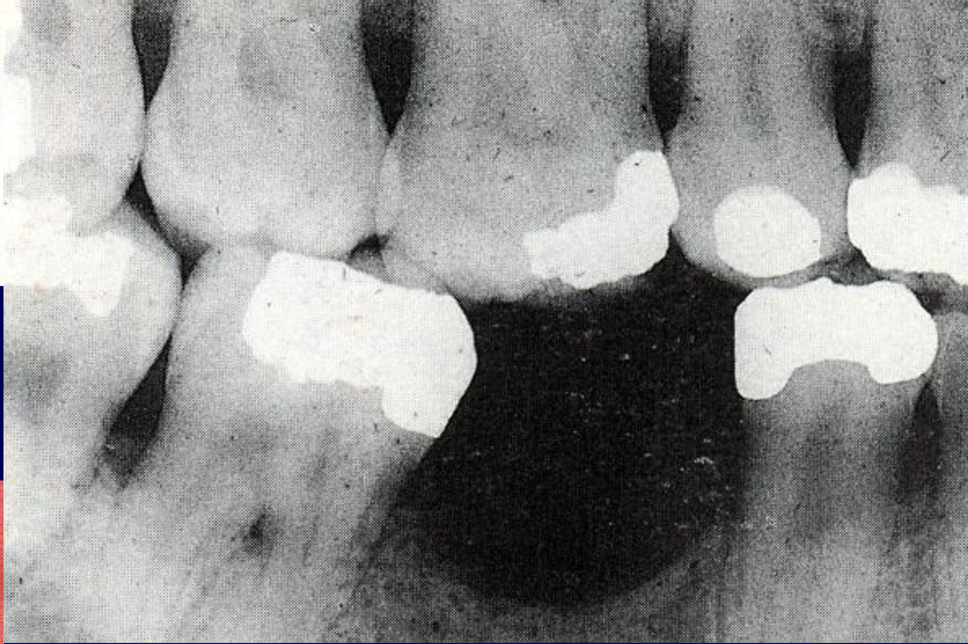
INDICATIONS FOR REMOVABLE PARTIAL DENTURES

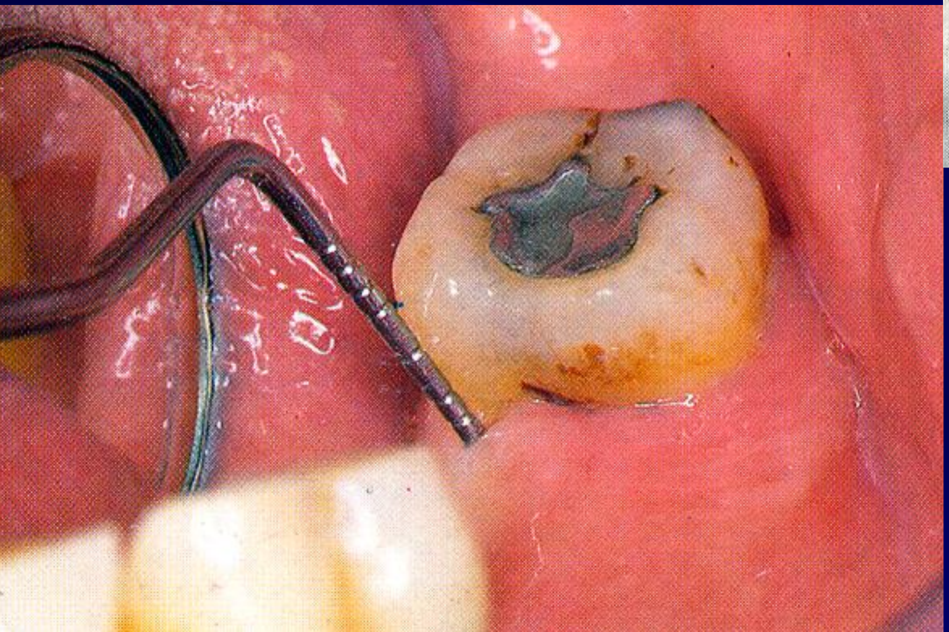
3- Periodontally weak teeth **not sufficiently sound to support fixed- partial denture.**











Periodontally weak teeth



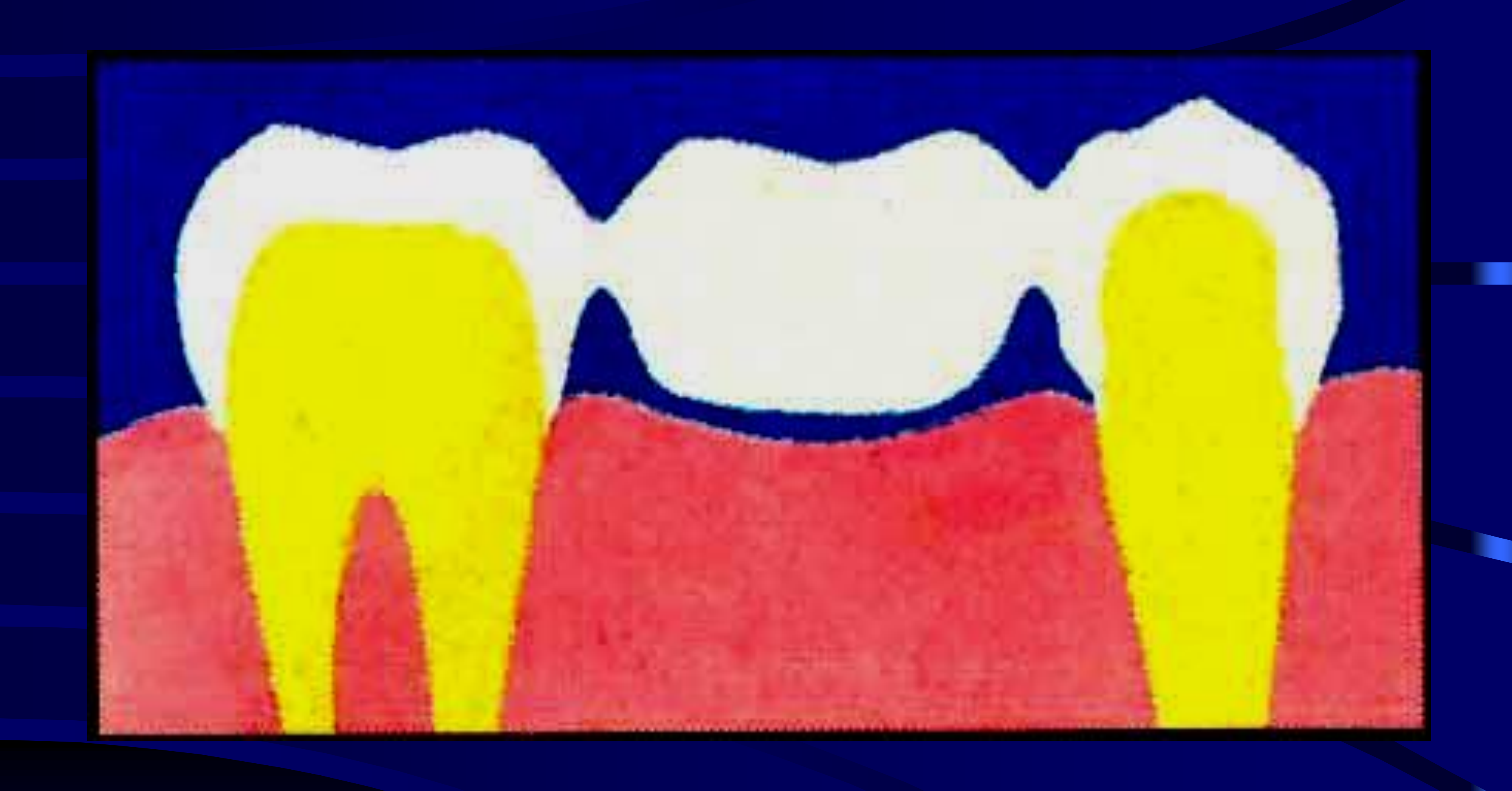
Free end edentulous area

Periodontally weak teeth

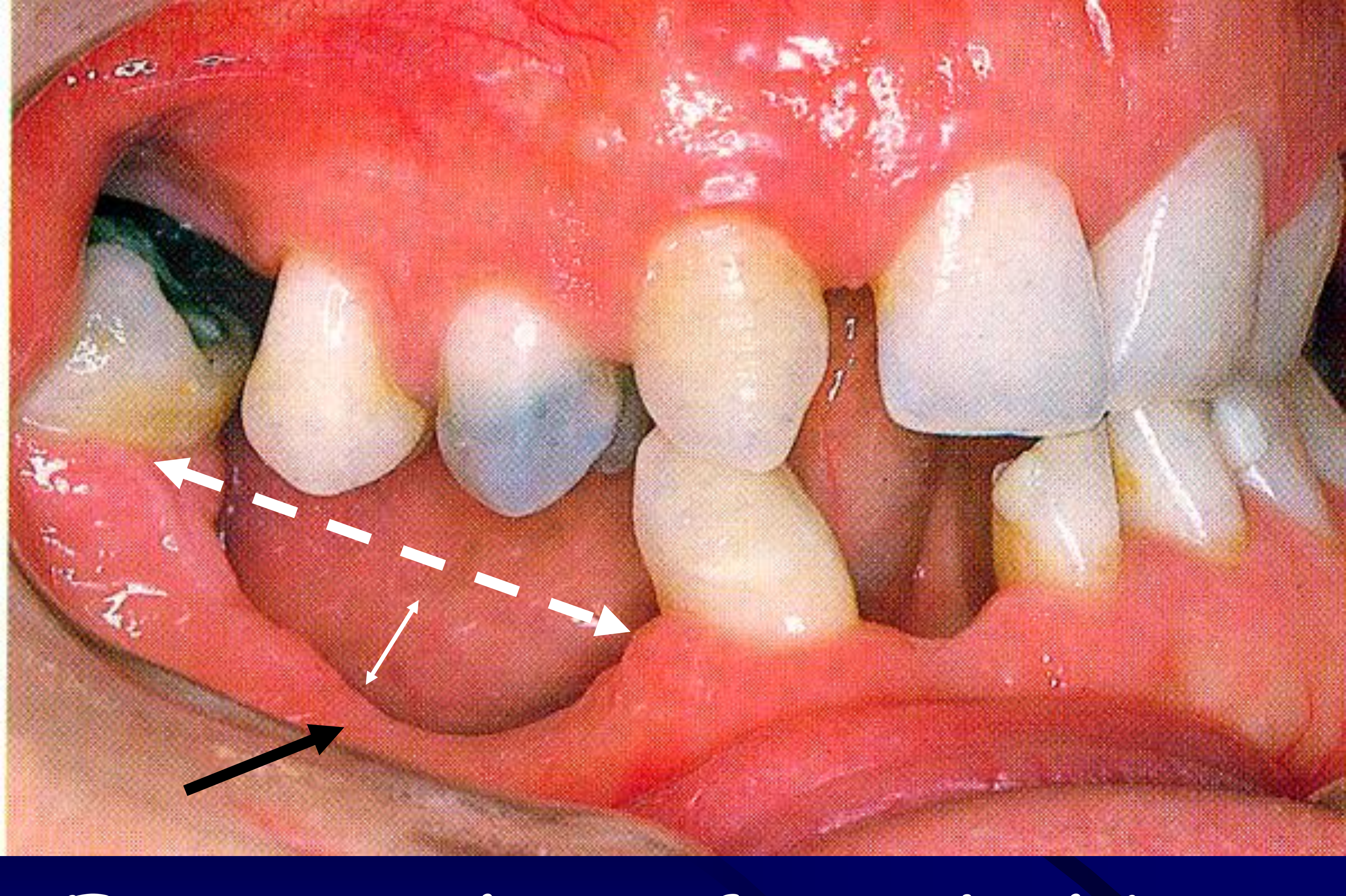
4- With excessive loss of residual bone, the use of labial flange or need to restore lost tissues.







With excessive loss of residual bone, space is seen under the pontic.



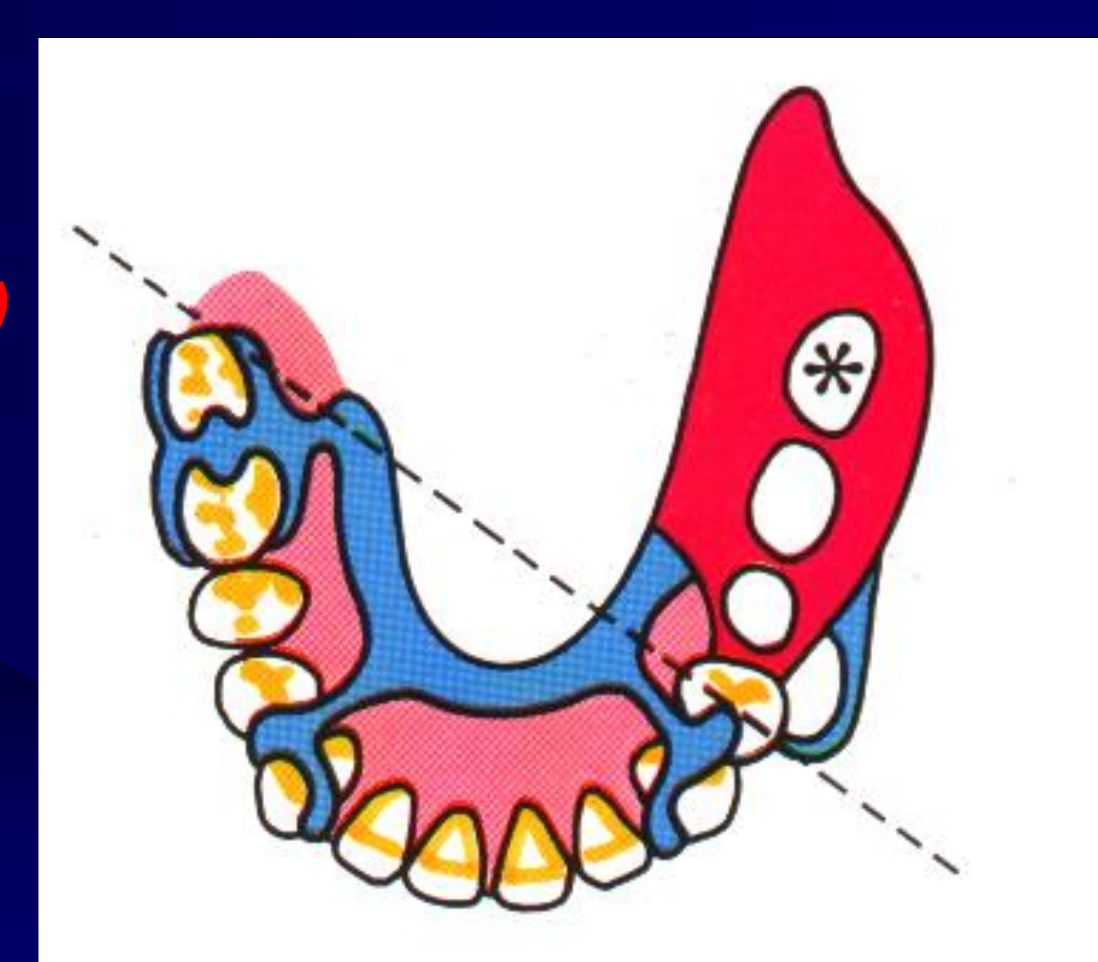
Excessive loss of residual bone

INDICATIONS FOR REMOVABLE PARTIAL DENTURES

5- After recent extraction, usually done only to improve esthetics, or for patient satisfaction.

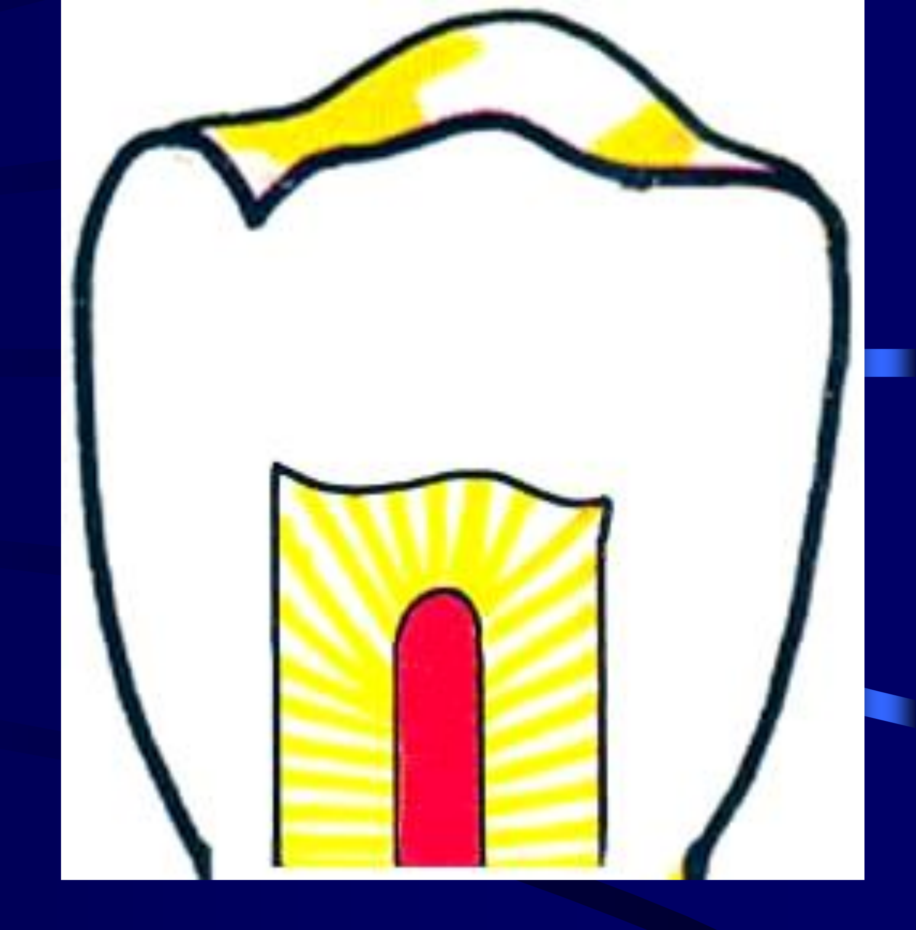
6- Need of bilateral bracing (cross arch stabilization)

7- Young age (less than 17 years).





Young



Old

Young age (less than 17 years) has a high pulp horn

7- Enhancing esthetics in anterior region, by the use of translucent artificial teeth instead of dull fixed partial denture pontic.

8-Economic considerations, attitude and desire of the patient.



OBJECTIVES OF REMOVABLE PARTIAL DENTURES

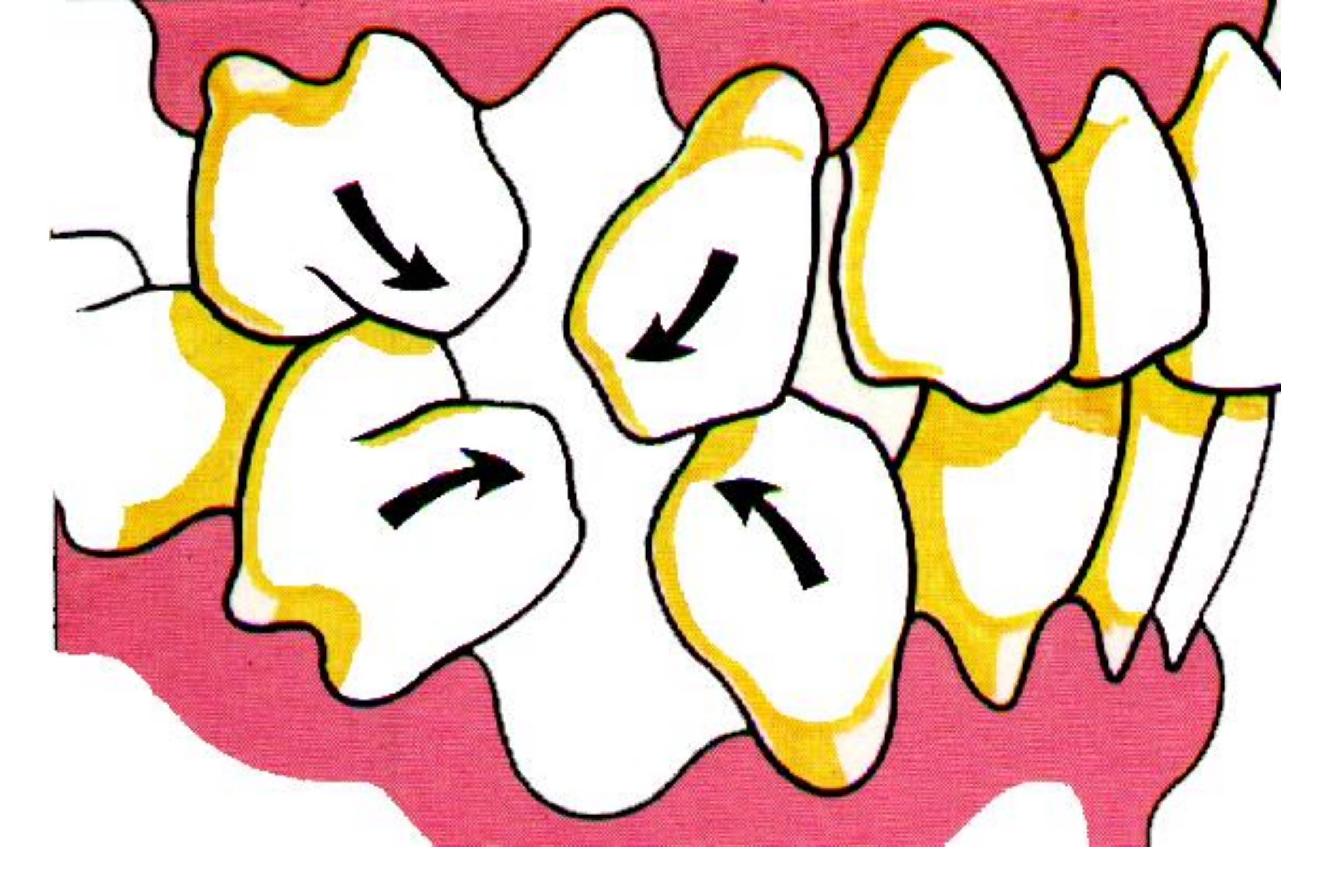
- ## Preservation of the Remaining Tissues

A- Preservation of the health of the remaining teeth.

B- Prevention of muscles and TMJ Dysfunction.

C-Preservation of the residual ridge.

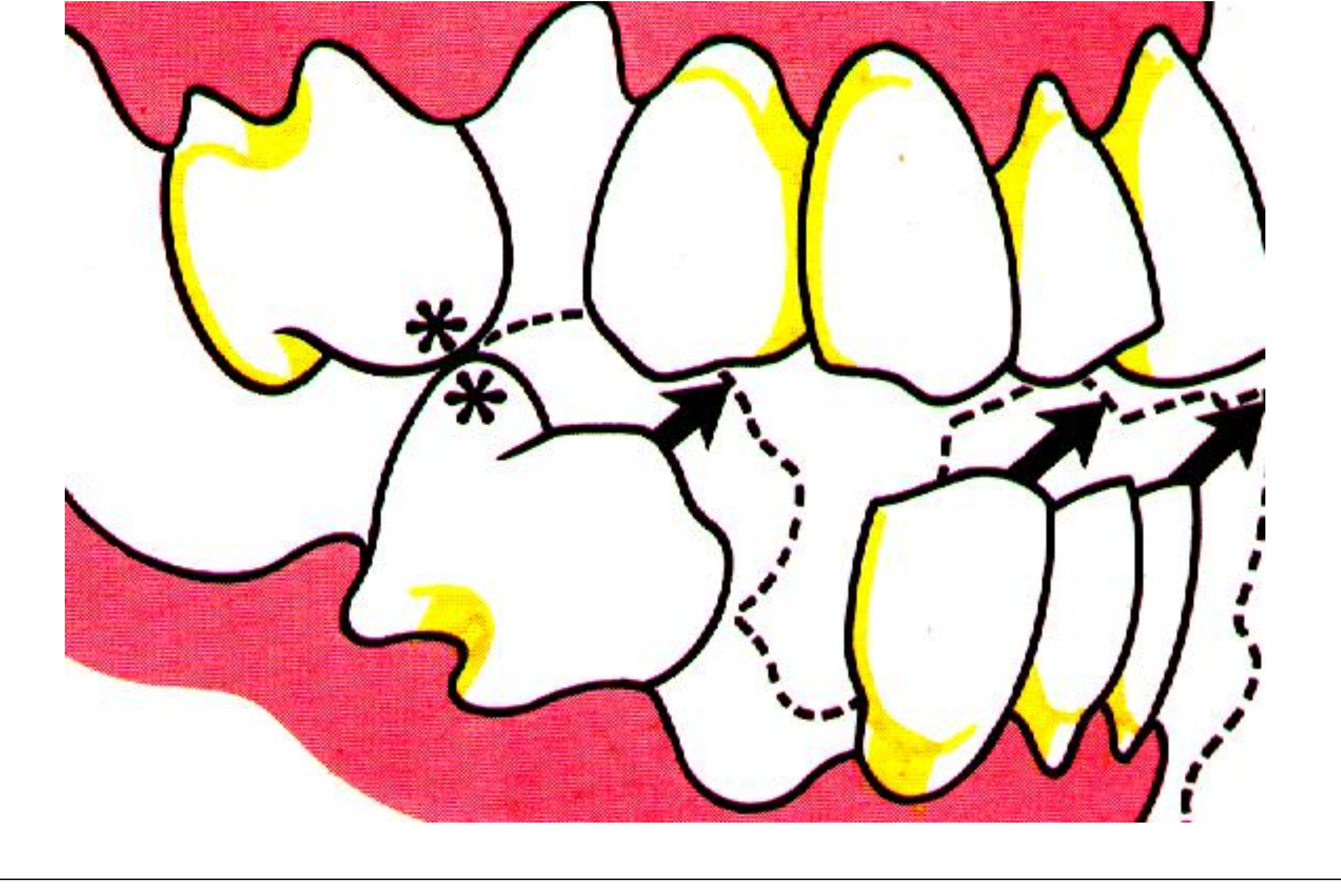
D- Preservation of the tongue contour and space.



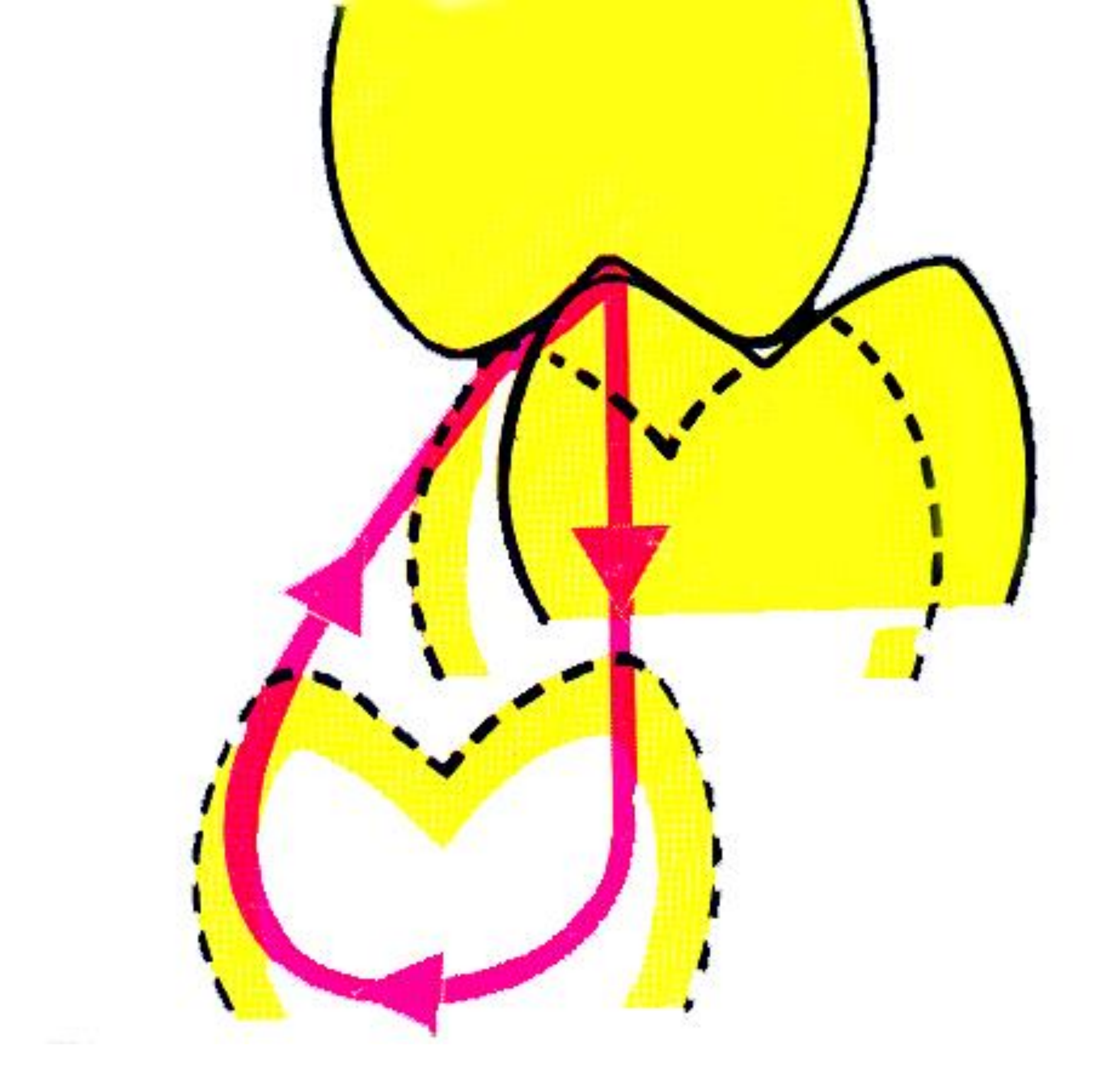
Replacement of lost teeth prevents the migration of teeth into the edentulous area following the loss of the natural dentition

Migration of teeth into the edentulous area following the loss of the natural





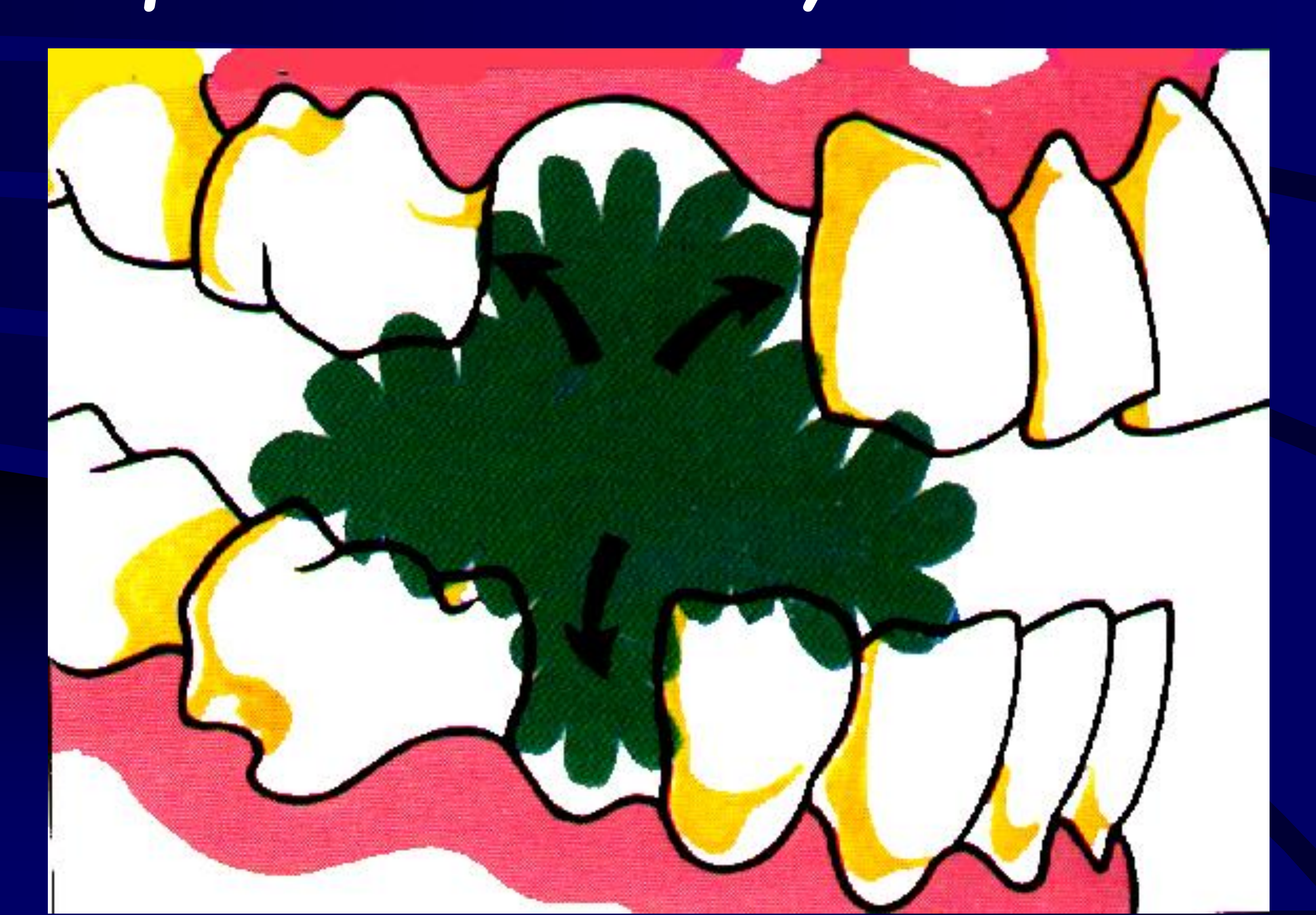
Change the pattern of mandibular closure as a result of loss of some teeth



Normal masticatory cycle

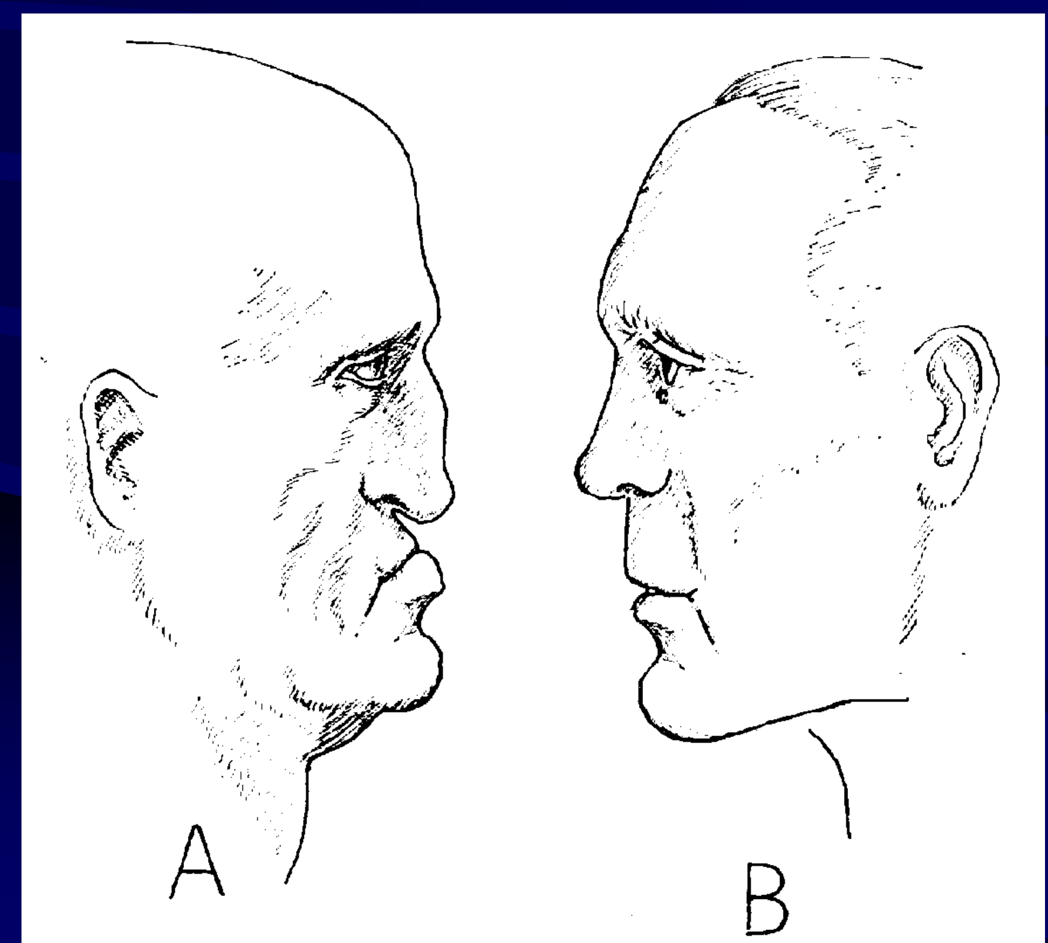
OBJECTIVES OF REMOVABLE PARTIAL DENTURES

- *Restore the Continuity of the Dental Arch to Improve Masticatory Function*



OBJECTIVES OF REMOVABLE PARTIAL DENTURES

- *Improvement of Esthetics, and Providing Support to the Paraoral Muscles, Lips and Cheeks*



OBJECTIVES OF REMOVABLE PARTIAL DENTURES

- *Enhance psychological comfort*

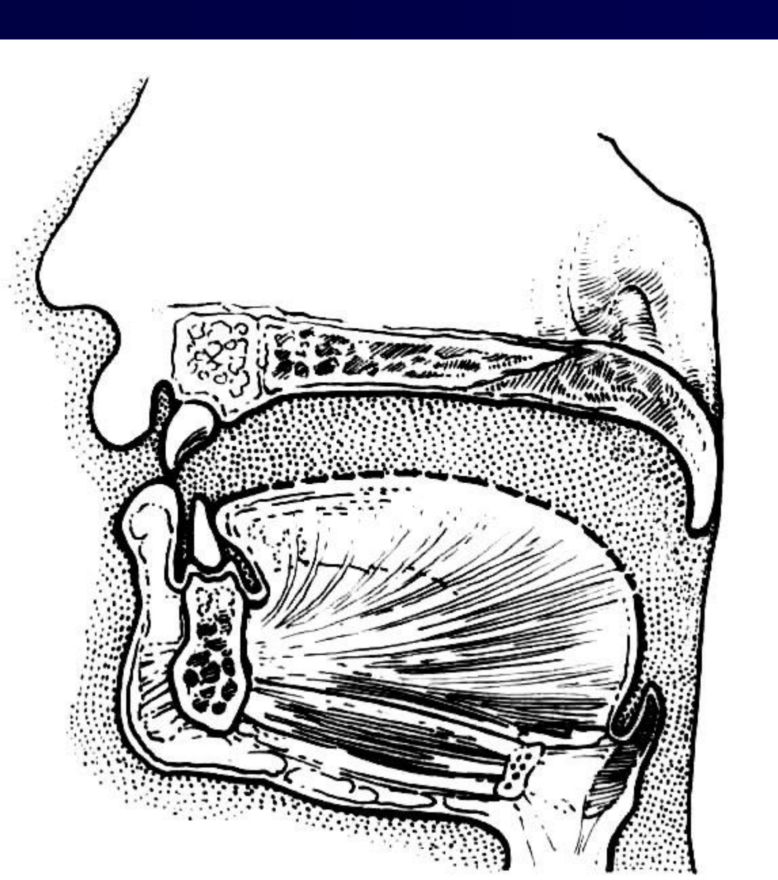


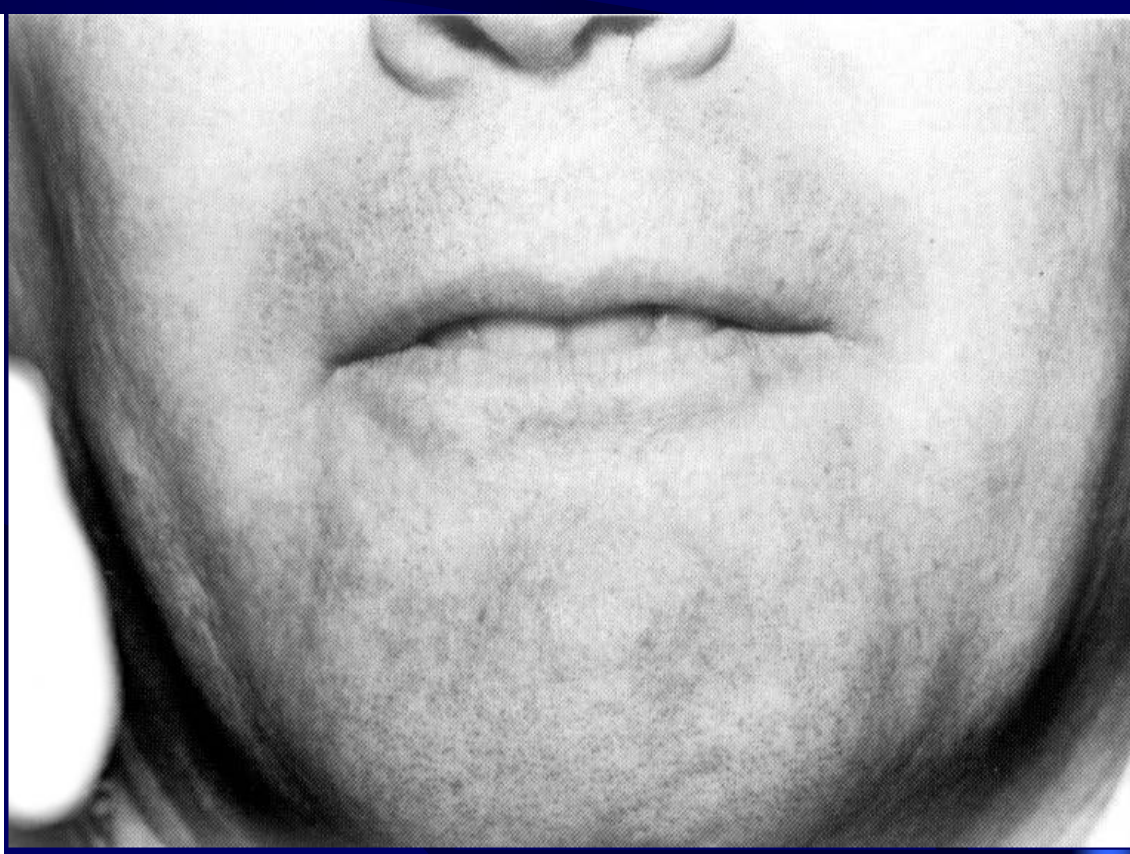

*Restoration of anterior teeth improves and restores appearance

*RPD should provide socially acceptable esthetics

OBJECTIVES OF REMOVABLE PARTIAL DENTURES

- *Restoration of Impaired speech*





ADVANTAGES OF REMOVABLE PARTIAL DENTURE OVER FIXED PARTIAL DENTURE

1- RPD constructed for any case whilst FPD are confined to short spans bounded by healthy teeth and with a normal occlusion.

2- Cheaper than fixed partial denture

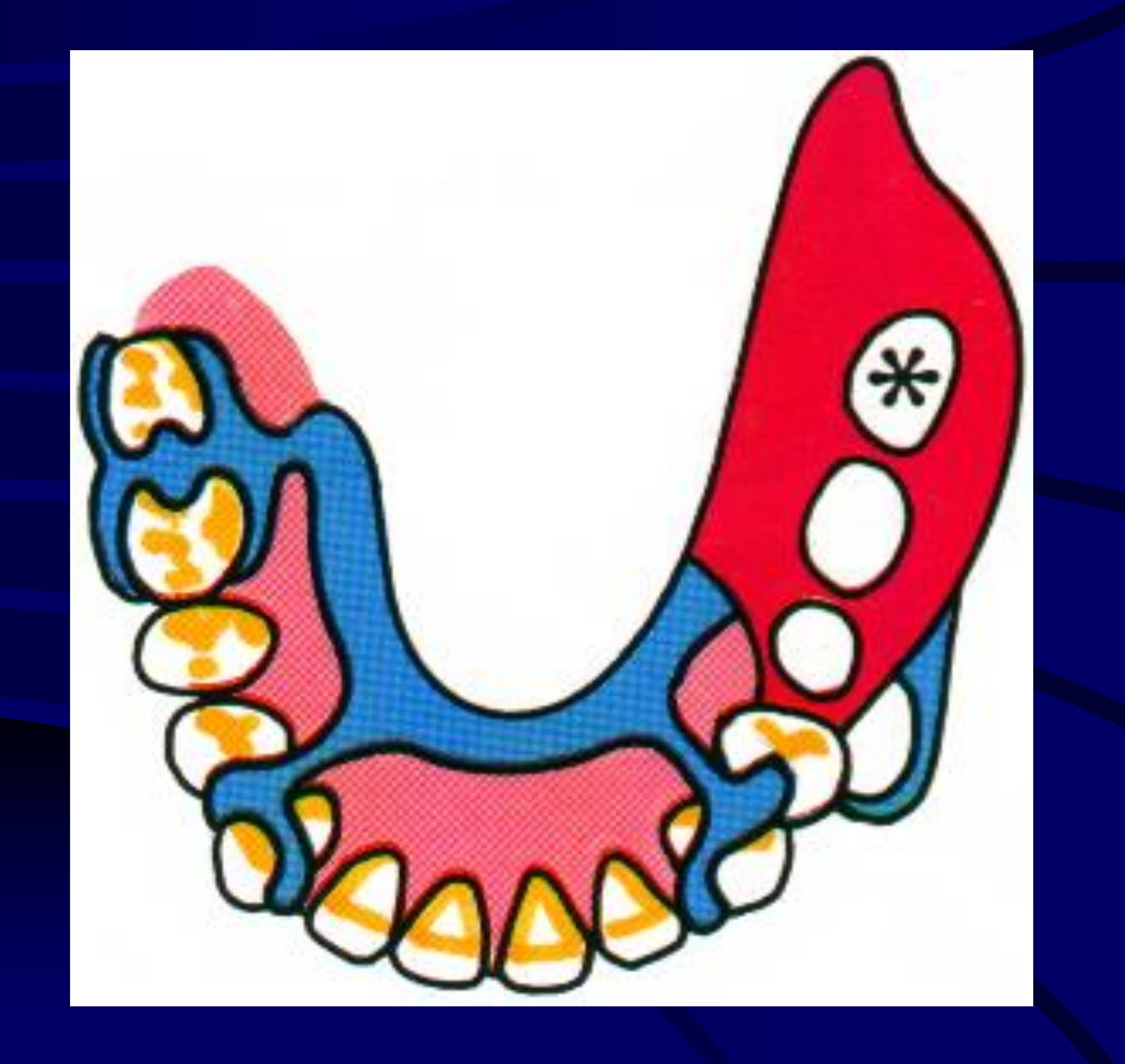
3- They are more easily cleaned

4- They are more easily repaired

5- No tooth reduction is required

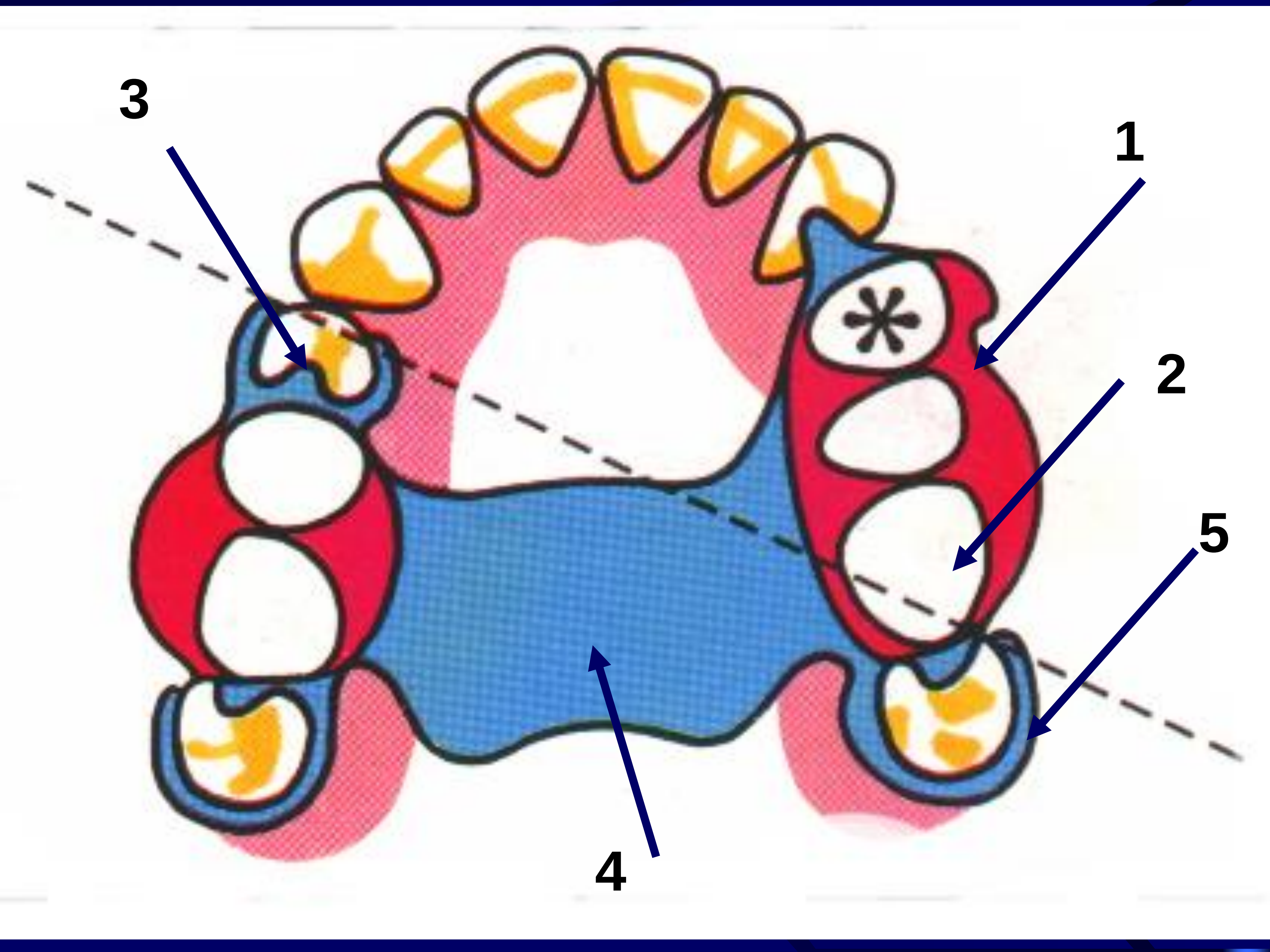






The Component Parts of Removable Partial Dentures

- Denture Base
- Artificial Teeth
- Supporting Rests
- Connectors: Major Connectors
  Minor Connectors
- Retainers
  Direct retainers
  Indirect Retainers


3
1
2
5
4

THANK YOU



CLASSIFICATION OF PARTIALLY EDENTULOUS ARCHES

- ***Classifications are important*** to facilitate communication ***between the dentist and the laboratory technician***

- ***Requirements of an Acceptable Classification:***

1- Permit ***immediate visualization*** of the type of partially edentulous arch

2- Permit ***immediate differentiation*** ***between bounded and free extension RPD.***

3- It should be universally accepted

CLASSIFICATION OF PARTIALLY EDENTULOUS ARCHES

I- Classification According to the Extent of the Removable Partial Denture:



Unilateral RPD (Removable Bridge)



Bilateral RPD

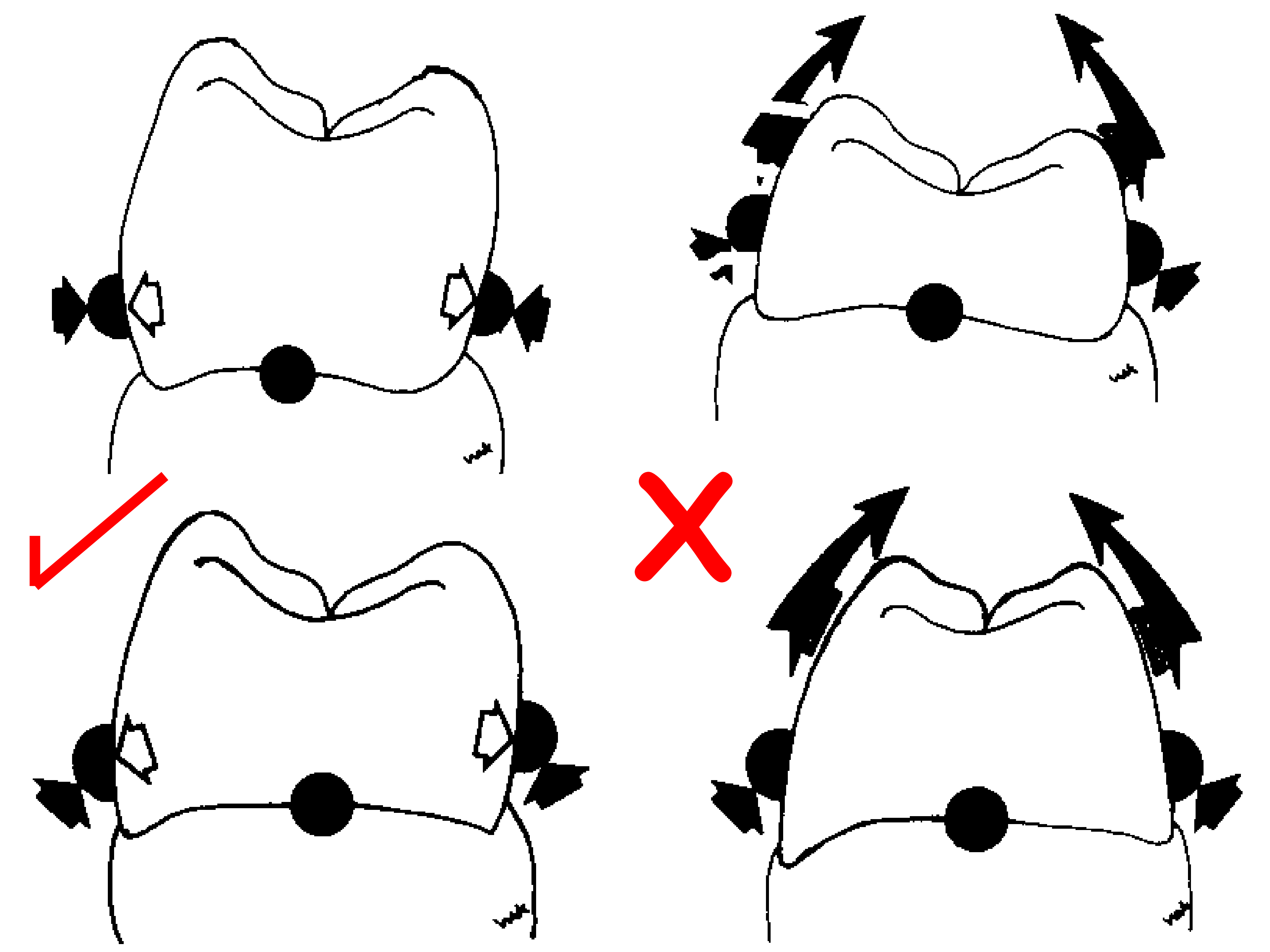
CLASSIFICATION OF PARTIALLY EDENTULOUS ARCHES

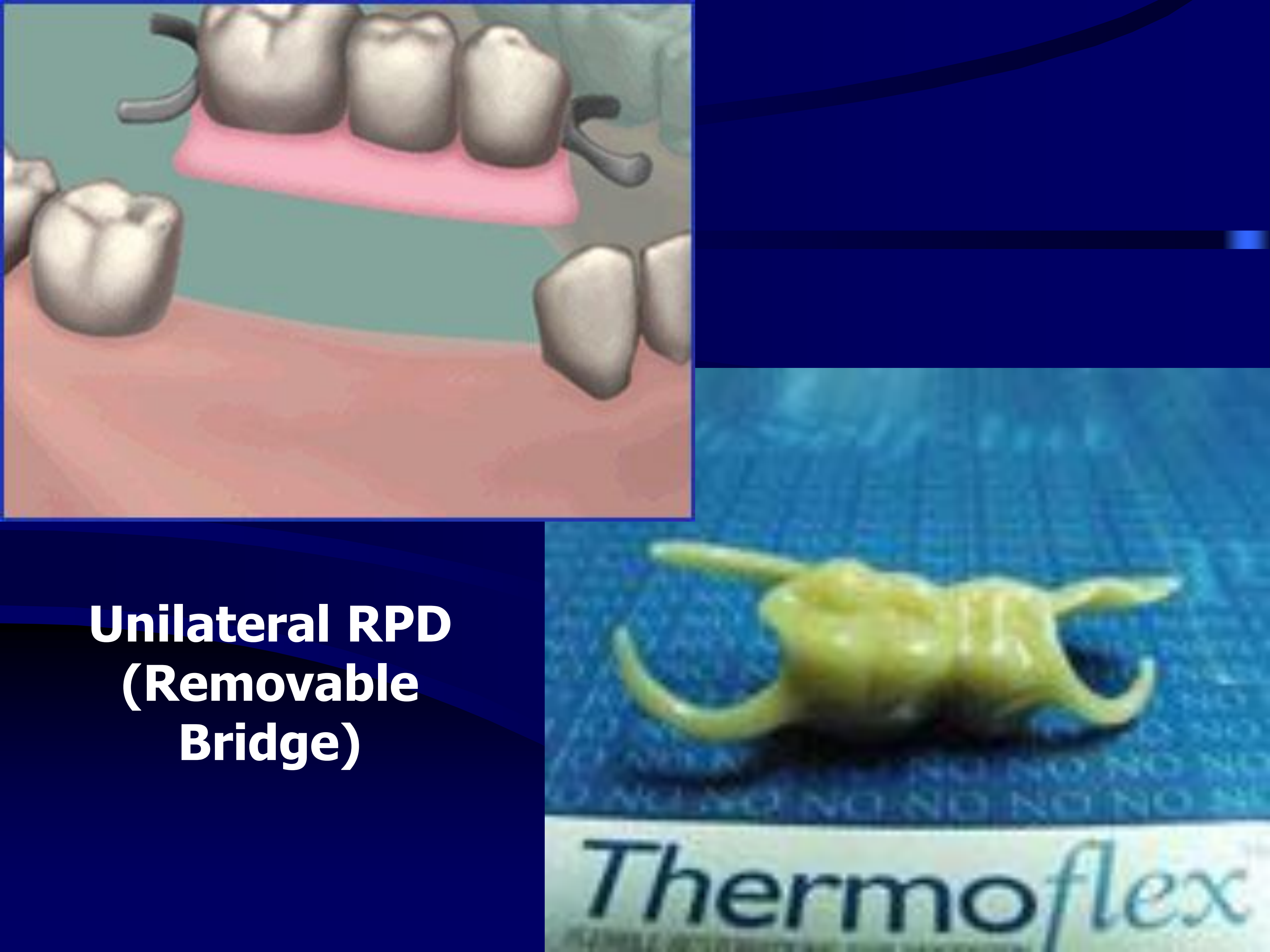
Unilateral RPD (Removable Bridge)

* long clinical crown of abutment tooth

*buccal and lingual surfaces of the abutment tooth must be parallel to resist tipping forces

*Retentive undercuts should be available on both the buccal and lingual surfaces of each abutment




Unilateral RPD
(Removable
Bridge)
Thermoflex

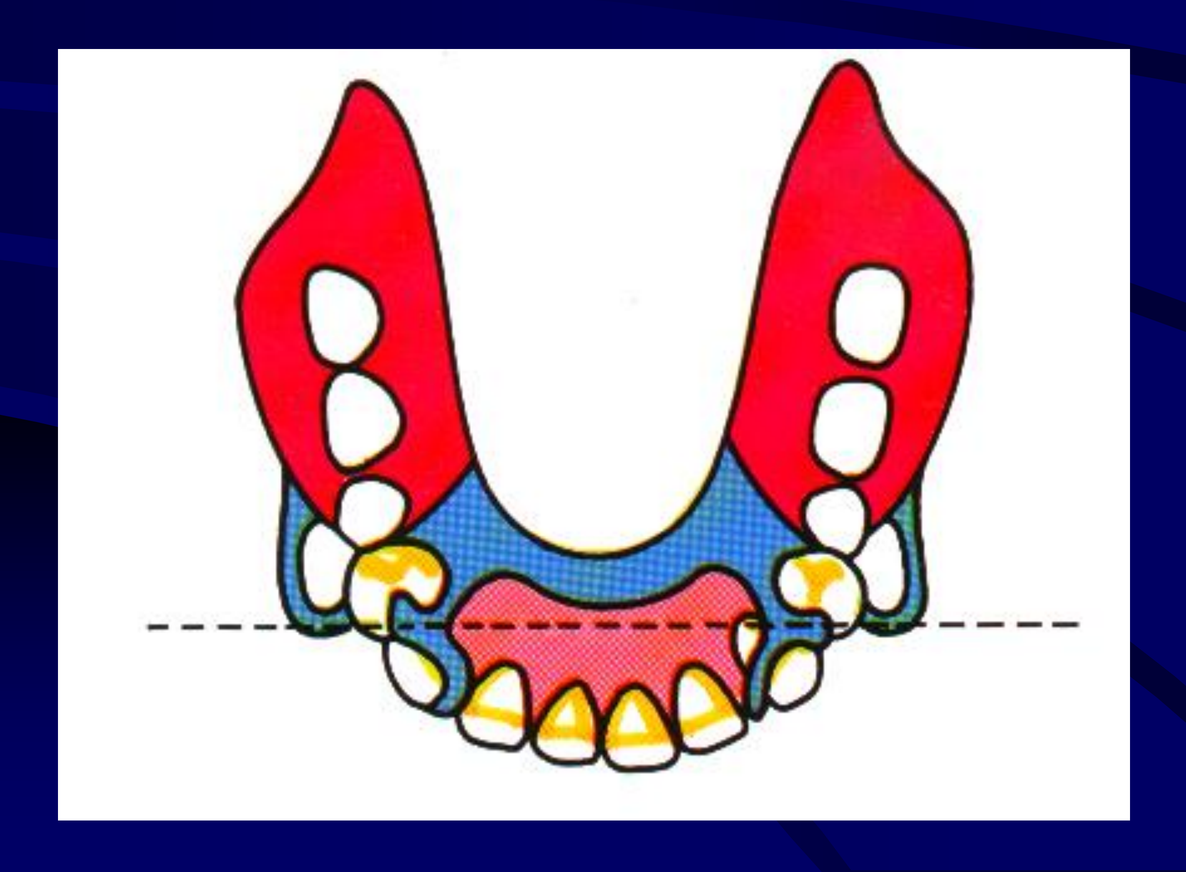
Unilateral RPD

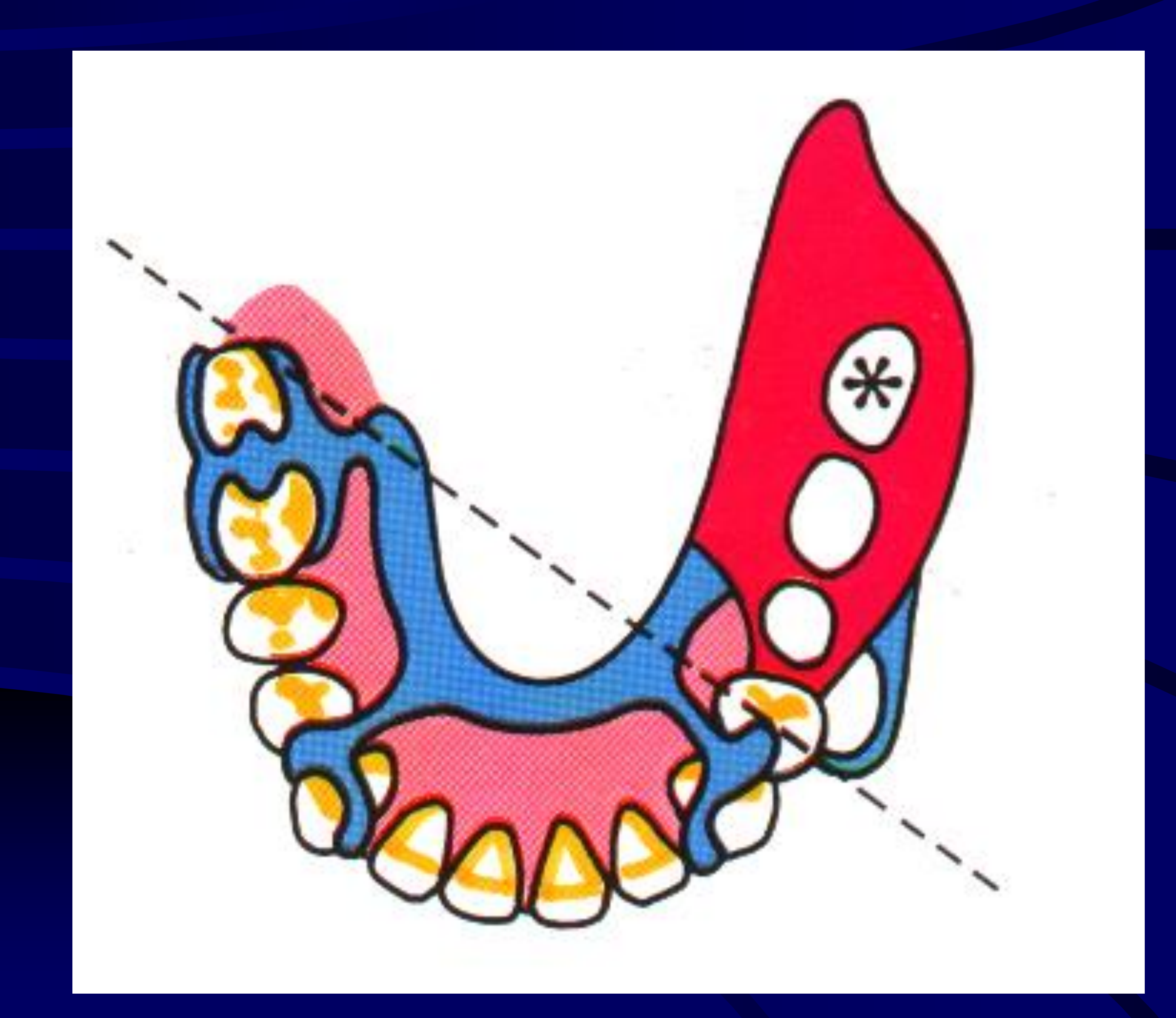
(Removable Bridge)

should be used with caution, as the chance of the denture becoming dislodged and aspirated is too great

Bilateral RPD:

which restore missing teeth and extended on both sides of the dental arch





CLASSIFICATION OF PARTIALLY EDENTULOUS ARCHES

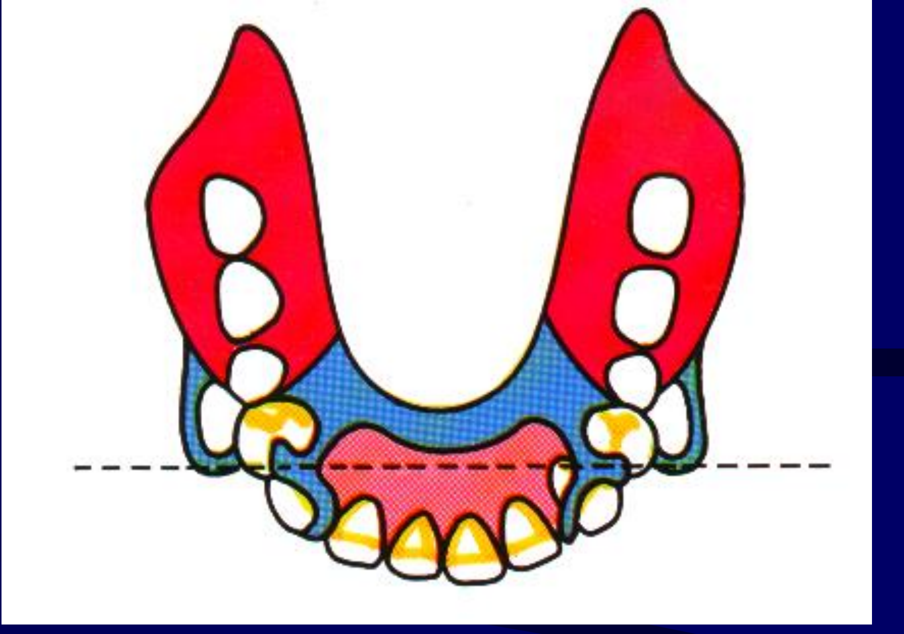
II- Classification According to the type of support of the R.P.D.:

1-Tooth and Tissue Supported RPD (Tooth and tissue borne)

2- Tooth Supported RPD (Tooth-borne) removable partial denture

3-Tissue Supported RPD (Tissue borne)

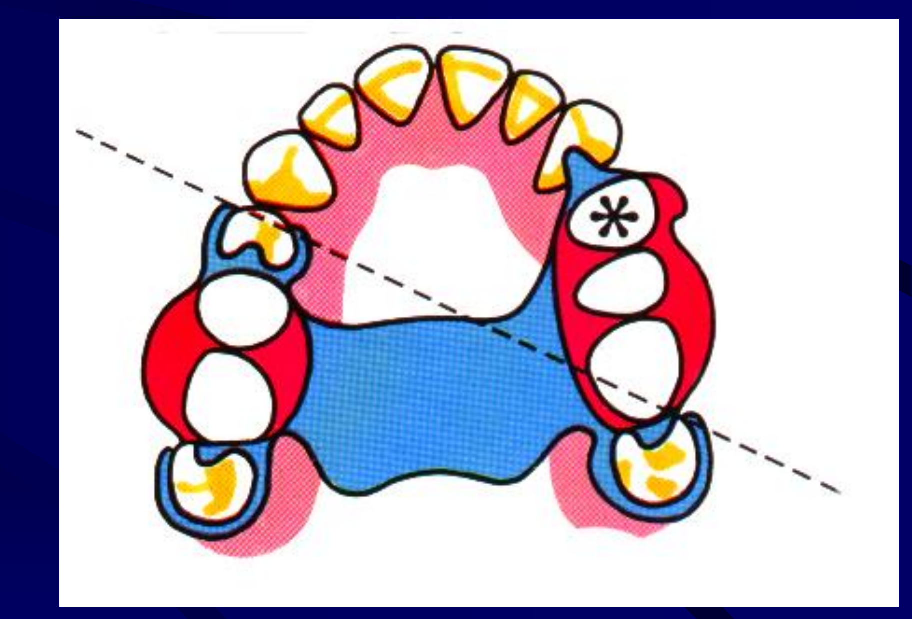




Tooth and Tissue Supported RPD



*Tissue Supported RPD



Tooth Supported RPD

CLASSIFICATION OF PARTIALLY EDENTULOUS ARCHES

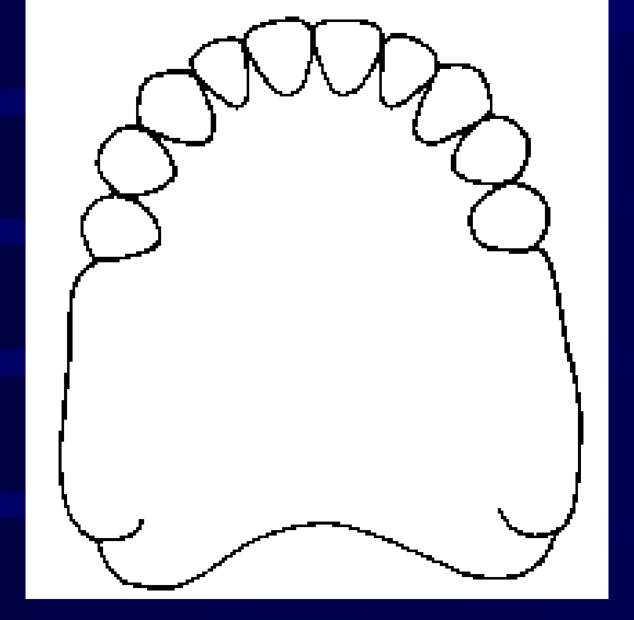
III- Classification According to the most posterior edentulous span or spans

Class I: **Bilateral edentulous areas located posterior to the remaining natural teeth.**

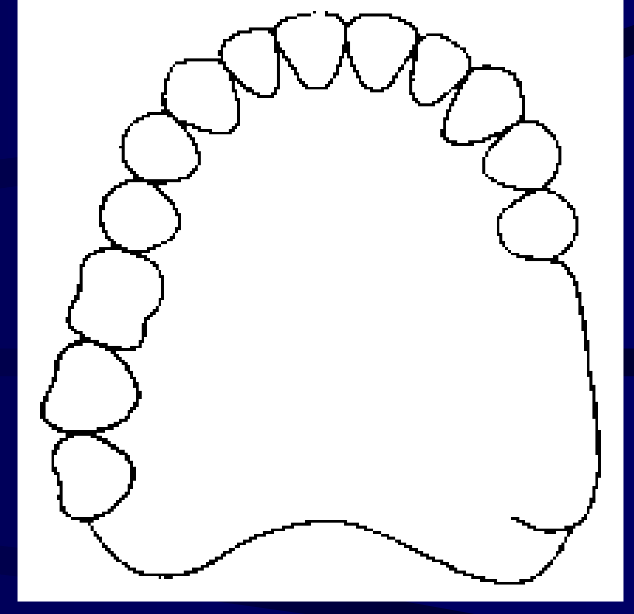
Class II: **Unilateral edentulous area located posterior to the remaining natural teeth.**

Class III: **Unilateral edentulous area with natural teeth, both anterior and posterior to it**

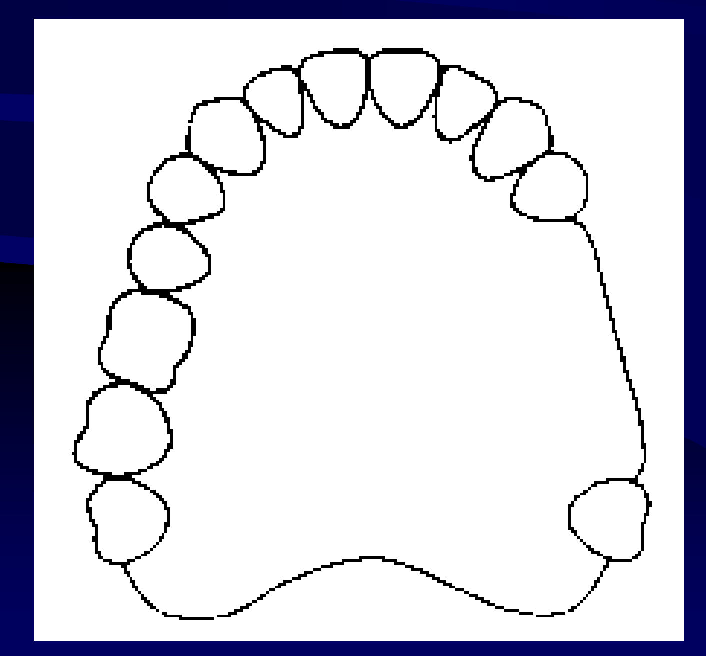
Class IV: **Single, bilateral edentulous area located anterior to the remaining natural teeth.**



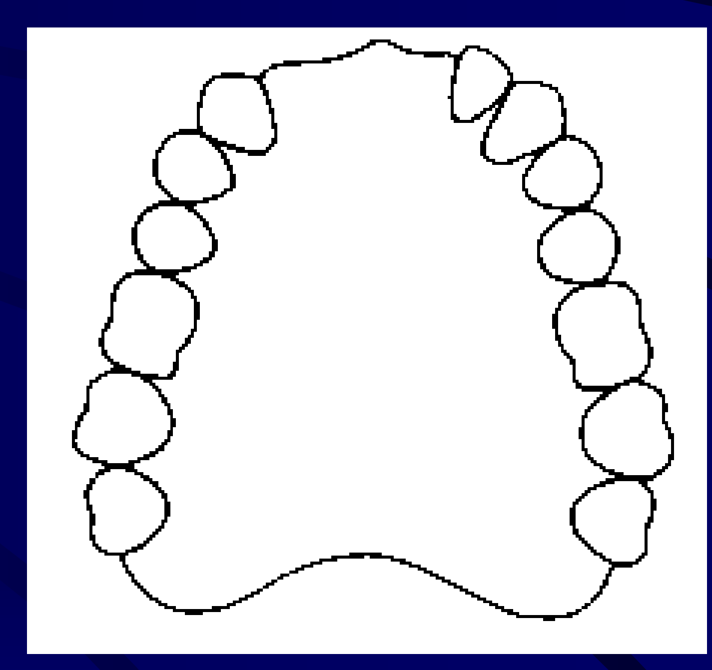
Class I



Class II



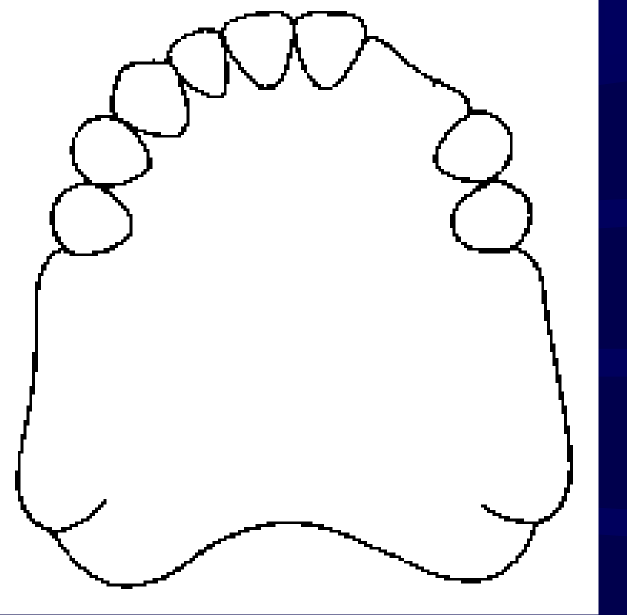
Class III

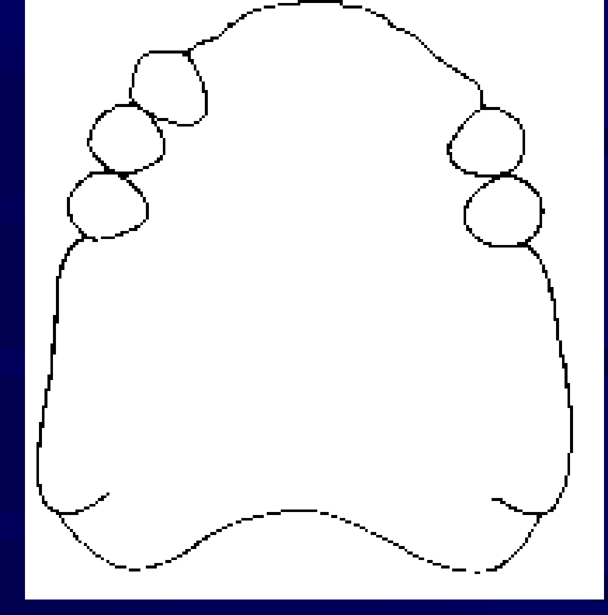


Class IV

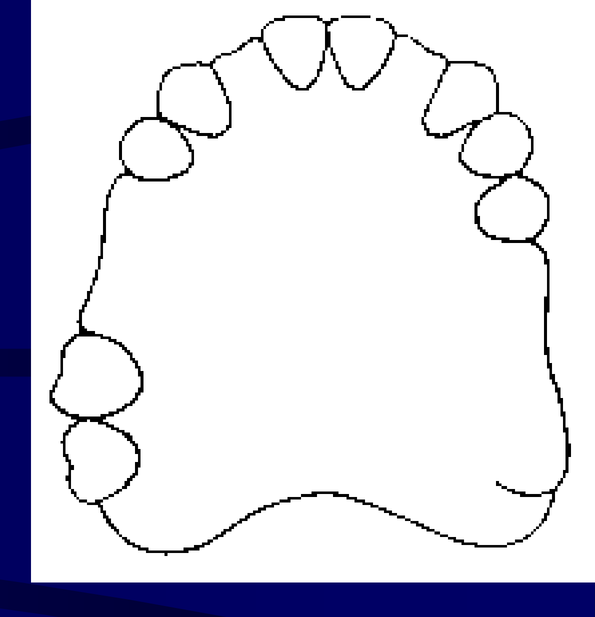
- **The numeric sequence of the classification system is based on *the frequency of occurrence of each class*. Class I being the most common while class IV is the least common. *Kennedy's classification was then modified by Applegate***

- **Additional edentulous areas are referred to *as modification spaces* and are designated *by their number***

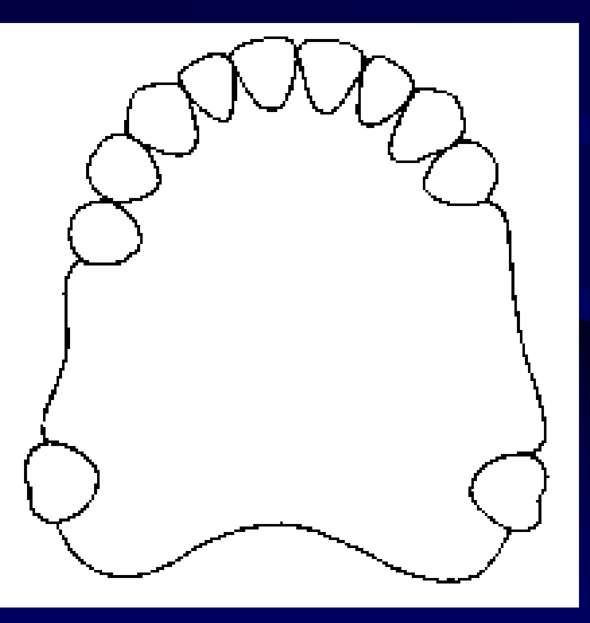




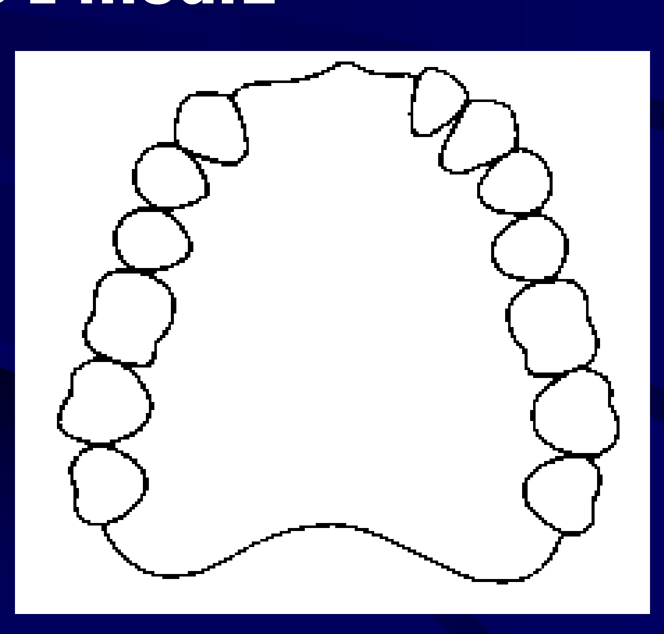
Class I mod.1



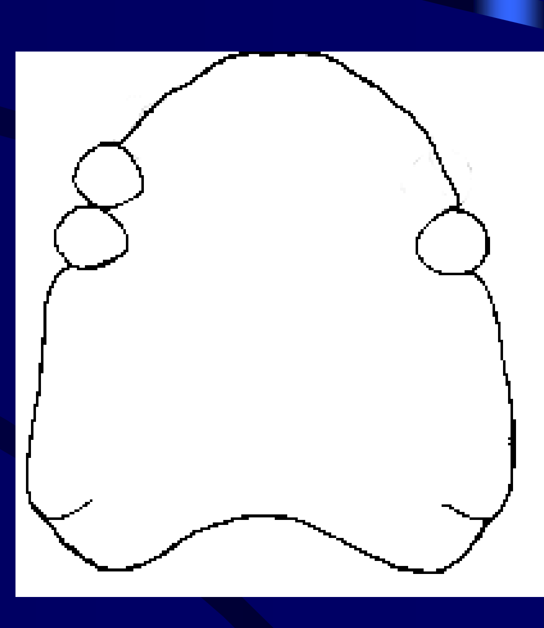
Class II mod.3



Class III mod. 1



Class IV



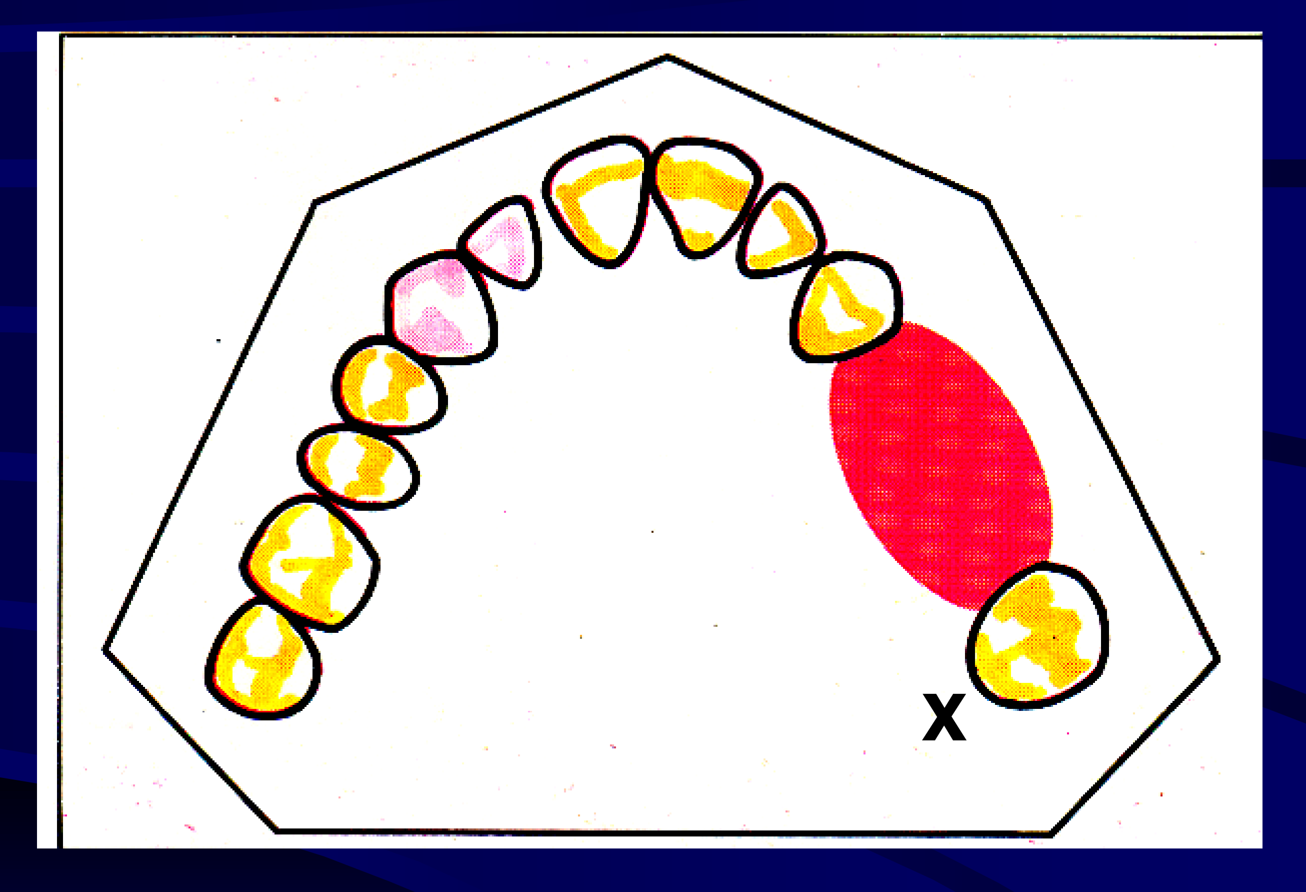
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Applegate's rules for applying Kennedy classification

Rule1

Classification should follow mouth preparations, since further extractions may alter the class

Rule1



If the left molar is extracted class III becomes class II



Applegate's rules for applying Kennedy classification

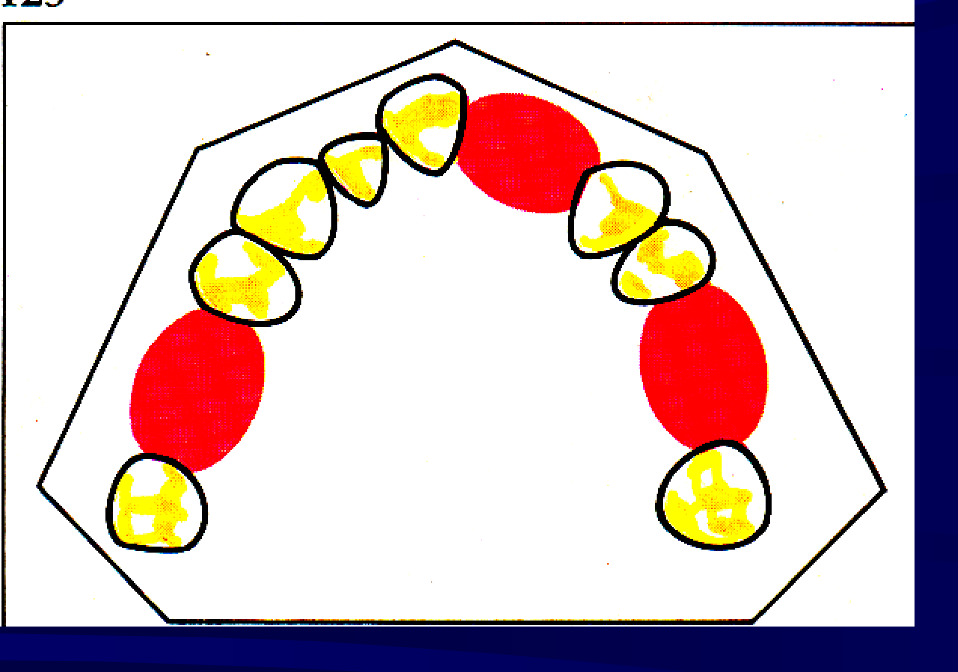
Rule2

If the third molar is missing and not to be replaced, it is not considered in the classification

Applegate's rules for applying Kennedy classification

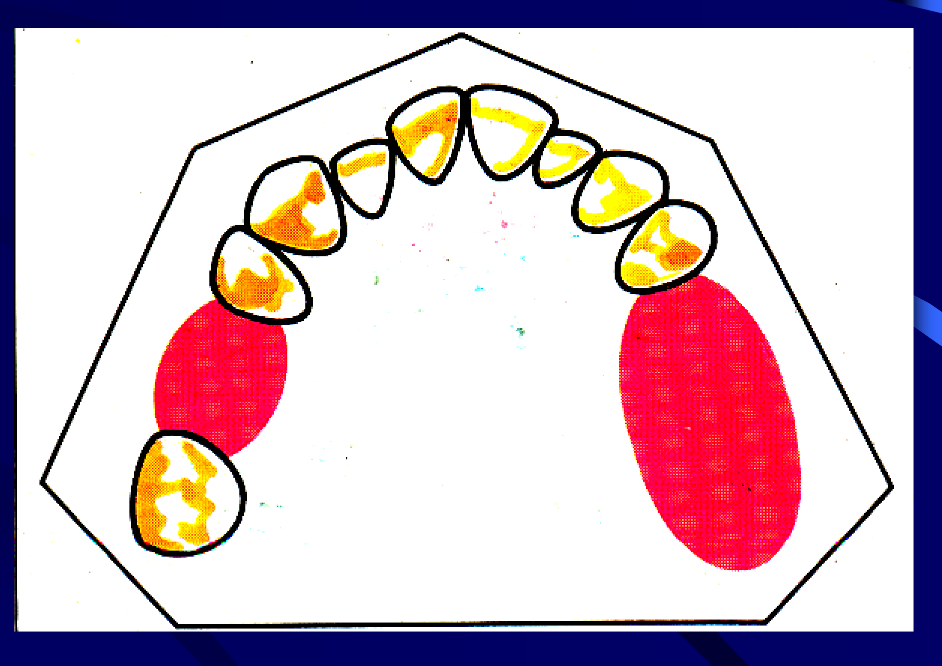
Rule3

If the third molar is present and to be used as an abutment, it is considered in the classification



Rule3

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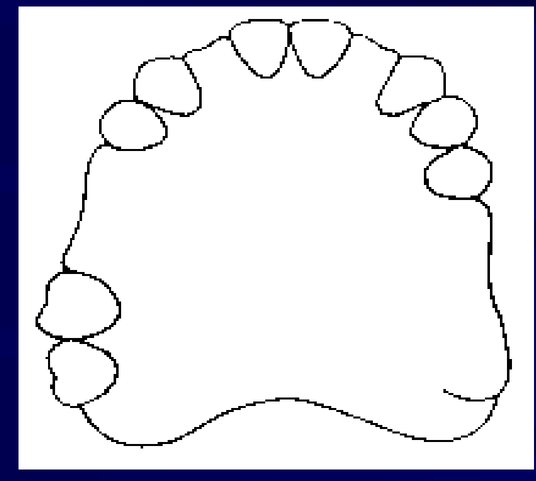
Applegate's rules for applying Kennedy classification

Rule4

If the second molar is missing and not to be replaced, because the opposing second molar is also missing, it is not considered in the classification

Applegate's rules for applying Kennedy classification

Rule5



The most posterior edentulous area (or areas) always determines the classification

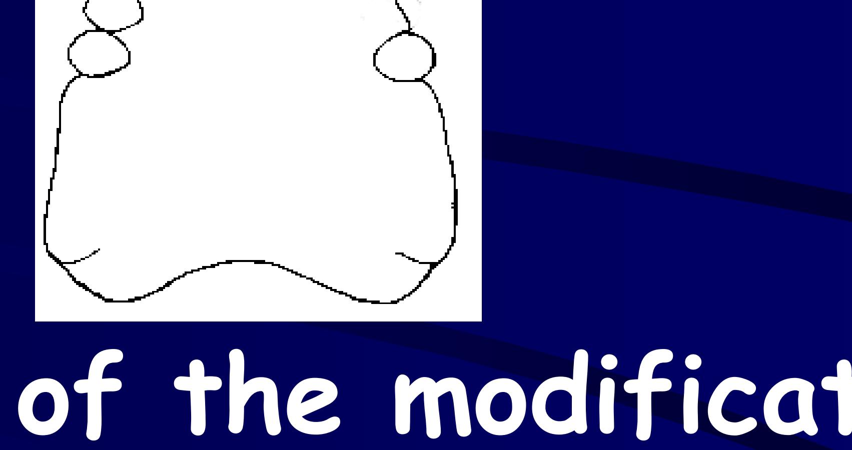
Applegate's rules for applying Kennedy classification

Rule 6

Additional edentulous areas other than those determining the class are referred to as modification spaces and are designated by their number

Applegate's rules for applying Kennedy classification

Rule7

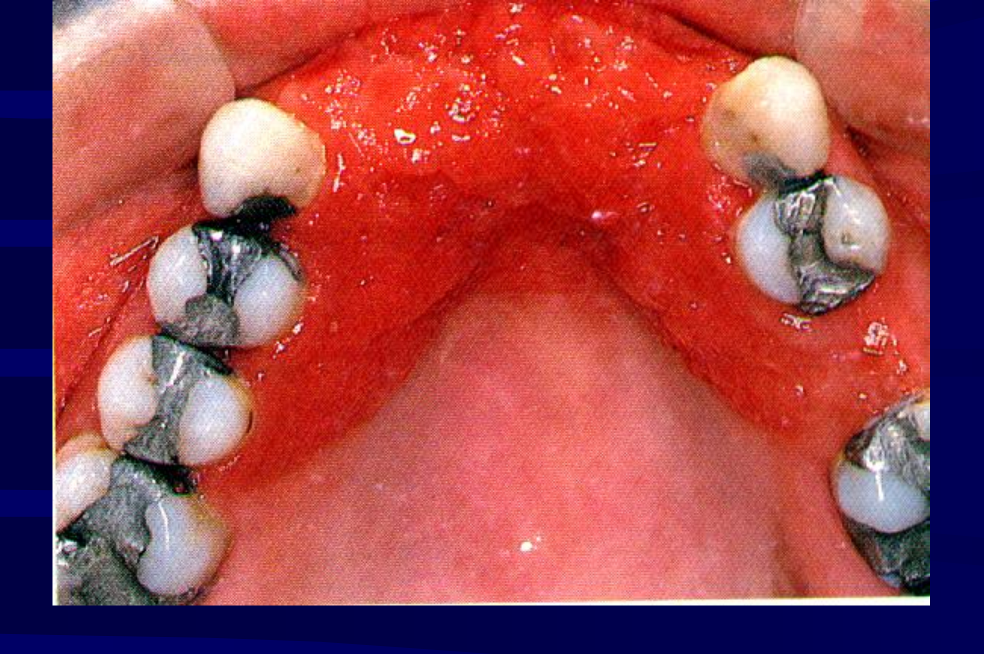


The extent of the modification is not considered, only the number of additional edentulous areas

Applegate's rules for applying Kennedy classification

Rule 8

There can be no modification areas in class IV arches, because if there is a posterior edentulous area beside the anterior one, the former will determine the class and the anterior edentulous area will be a modification to the class





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partial denture




THANK YOU